APPENDIX A

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

No. 00-15967

CHURCHILL COUNTY; CITY OF FALLON,
Plaintiffs-Appellants,

v.

GALE A. NORTON, in her official capacity as Secretary of the Interior;* WILLIAM BETTENBERG, in his official capacity as Assistant Director, Office of Policy Analysis, Department of the Interior; JEFFREY ZIPPIN, in his official capacity as Team Leader Truckee-Carson Coordination Office, Department of the Interior; RONALD ANGLIN, in his official capacity as Refuge manager, Stillwater NationalWildlife Refuge, Department of the Interior; MARVIN PLENERT, in his official capacity as Regional Director of the U.S. Fish and Wildlife Service; JOHN DOEBEL, in his official capacity as Assistant Regional Director of the U.S. Fishand Wildlife Service; and ANN BALL, in her official capacity as Project Manager of Bureau of Reclamation Lahontan Basin Project Office,

Defendants-Appellees,

and SIERRA PACIFIC POWER COMPANY,
Defendant-Intervenor.

March 11, 2002, Filed

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* Gale A. Norton is substituted for her predecessor, Bruce Babbitt, as Secretary of the Interior.

ORDER AMENDING OPINION AND DENYING PETITION FOR REHEARING AND REHEARING EN BANC

PAEZ, *Circuit Judge*:

The panel has unanimously voted to deny the petition for rehearing. The full court has been advised of the petition for rehearing en banc, and no judge of the court has requested a vote on the petition for rehearing en banc. Fed. R. App. P. 35(b). The petition for rehearing is denied and the petition for rehearing en banc is rejected.

The opinion filed December 19, 2001, is hereby AMENDED as follows:

1. On page 17022 of the slip opinion [Pet. App. 8a], in the sentence beginning, "The Secretary withdrew . . . ." delete "20,000 acres" and replace with "approximately 200,000 acres."

2. On page 17029 of the slip opinion [Pet. App. 16a], the sentence reading, "For example, Section 204 confirmed a court-ordered allocation between California and Nevada of water from the Carson River, Lake Tahoe, and the Truckee River." is deleted and replaced with the following two sentences: "For example, Section 204 confirmed the *Alpine Decree*, allocating water from the Carson River between California and Nevada. It also allocated water from the Truckee River and Lake Tahoe between the two states."

3. On page 17031 of the slip opinion [Pet. App. 17a], the two sentences reading, "The Newlands Project's Operating Criteria and Procedures (OCAP) must be revised. The Section also covers expansion of the Newlands Project purposes to include recreation." are deleted and replaced by the following two sentences: "It expands the authorized purposes of the Newlands Project to include recreation and water quality,

among others. The Section also requires the Secretary to study the feasibility of improving the conveyance efficiency of Newlands Project facilities."

4. On page 17036 of the slip opinion [Pet. App. 22a], the following two sentences are deleted: "Fallon's underground water rights are served by the Newlands Project. Its municipal water system is served and supplied by wells whose aquifers are recharged through surface irrigation." They are replaced by the following sentence: "Fallon's municipal water system is served and supplied by wells whose aquifers are recharged, at least in part, through surface water diverted through the Newlands Project."

APPENDIX B

UNITED STATES COURT OF APPEALS
FOR THE NINTH CIRCUIT

No. 00-15967

CHURCHILL COUNTY; CITY OF FALLON,
Plaintiffs-Appellants,

v.

GALE A. NORTON, in her official capacity as Secretary of the Interior;* WILLIAM BETTENBERG, in his official capacity as Assistant Director, Office of Policy Analysis, Department of the Interior; JEFFREY ZIPPIN, in his official capacity as Team Leader Truckee-Carson Coordination Office, Department of the Interior; RONALD ANGLIN, in his official capacity as Refuge manager, Stillwater National Wildlife Refuge, Department of the Interior; MARVIN PLENERT, in his official capacity as Regional Director of the U.S. Fish and Wildlife Service; JOHN DOEBEL, in his official capacity as Assistant Regional Director of the U.S. Fish and Wildlife Service; and ANN BALL, in her official capacity as Project Manager of Bureau of Reclamation Lahontan Basin Project Office,
Defendants-Appellees,

and SIERRA PACIFIC POWER COMPANY,
Defendant-Intervenor.

JUDGES: Before: Joseph T. Sneed, Susan P. Graber, and Richard A. Paez, *Circuit Judges*.

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* Gale A. Norton is substituted for her predecessor, Bruce Babbitt, as Secretary of the Interior. Fed. R. App.P. 43(c)(2).

PAEZ, *Circuit Judge*:

For more than a century, myriad interests, from individuals to power companies to Indian tribes, from federal to state to local governments, have disputed the rights to water from the Truckee and Carson Rivers.[1] Through its enactment of Public Law 101-618, 104 Stat. 3289 (1990), Congress addressed years of legal challenges regarding the over-committed water resources of this region. This action involves Title II of Public Law 101-618—the Truckee-Carson Pyramid Lake Water Rights Settlement Act ("Settlement Act").[2] Title II includes a variety of provisions intended to settle disputes over the rights to water from the Truckee and Carson Rivers and to address the environmental effects of overuse. Many of these provisions direct actions involving water allocation and usage in the region.

Section 206(a) of the Settlement Act requires the Secretary of the Interior to acquire sufficient water and water rights from willing sellers to sustain approximately 25,000 acres (on a long-term average) of primary wetland habitat located in the Lahontan Valley of west-central Nevada. The Fish and Wildlife Service ("FWS" or "Service") prepared an Environmental Impact Statement ("EIS") in connection with the implementation of Section 206(a). The Service evaluated five alternative strategies for acquiring water rights and related interests, including a "no action alternative," and selected Alternative 5. Alternative 5 provides for purchases

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[1] "Water litigation is a weed that flowers in the arid West." *United States v. Orr Water Ditch Co.*, 256 F.3d 935, 940 (9th Cir. 2001).

[2] Title I—the Fallon Paiute-Shoshone Indian Tribes Water Rights Settlement Act of 1990—established a $43 million fund for, among other purposes, the Tribes' economic development and acquisition of land, water rights, or related property interests to consolidate the Tribes' Reservation holdings in exchange for the Tribes' release of all claims against the United States.

from willing sellers of up to 55,000 acre-feet of water rights in the Carson Division, supplementing water and water rights already acquired under an earlier acquisition effort or to be acquired from other sources, such as the Carson River above the Lahontan Reservoir. In September 1996, the Service published the Final Environmental Impact Statement, Water Rights Acquisition for Lahontan Valley Wetlands, Churchill County, Nevada ("WEIS").

Plaintiffs, Churchill County and the City of Fallon, filed separate actions and one joint action asserting claims for violation of the National Environmental Policy Act of 1969 ("NEPA"), 42 U.S.C. §§ 4321-4370f. Plaintiffs contend that (1) the Service violated NEPA by approving land and water rights purchases pursuant to Section 206 of the Settlement Act without first preparing a programmatic EIS analyzing the cumulative and synergistic impacts of the Act's interrelated provisions; and (2) the WEIS, prepared in connection with Section 206, failed to comply with NEPA because Defendants did not adequately assess the cumulative impacts of actions other than wetlands acquisitions, failed to study impacts to groundwater, and failed to define and study a reasonable range of alternatives.

Early in the litigation, the district court granted Defendants' motion for summary judgment on the ground that Plaintiffs lacked standing. We reversed, holding that the County and the City had established standing. *Churchill County v. Babbitt,* 150 F.3d 1072, 1078 (9th Cir.), *amended by* 158 F.3d 491 (9th Cir. 1998).

On March 31, 2000, the district court granted Defendants' motion for summary judgment on the programmatic EIS claims, concluding that Sections 205, 206, 207, 209, and 210(b)(16) are not "connected actions" or "related actions" that have cumulative or synergistic impacts. As a result, these other projects and directives did not need to be addressed in a single comprehensive EIS. The court also granted

Defendants' cross-motion and denied Plaintiffs' cross-motion on the adequacy of the WEIS, concluding that it satisfied NEPA's procedural requirements by analyzing the potential adverse environmental impacts of implementing Section 206(a) and considering a wide range of reasonable, feasible alternatives.

Plaintiffs timely appealed. We have jurisdiction under 28 U.S.C. § 1291, and we affirm.

I

RELEVANT FACTUAL BACKGROUND

Water has always been scarce in Nevada. Indeed, "Nevada has, on the average, less precipitation than any other State in the Union." *Nevada v. United States,* 463 U.S. 110, 114, 77 L. Ed. 2d 509, 103 S. Ct. 2906 (1983). "Ninety percent of the annual precipitation is lost to evaporation and transpiration, compounding the problems of a naturally short growing season." A. Dan Tarlock, *The Creation of New Risk Sharing Water Entitlement Regimes: The Case of the Truckee-Carson Settlement*, 25 Ecology L.Q. 674, 677 (1999).

The Carson and Truckee Rivers provide western Nevada with its water supply. The Carson River "rises on the eastern slope of the High Sierra in Alpine County, California, and flows north and northeast over a course of about 170 miles, finally disappearing into Carson sink." *Nevada*, 463 U.S. at 115. The Truckee River "rises in the High Sierra in Placer County, California, flows into and out of Lake Tahoe, and thence down the eastern slope of the Sierra Nevada mountains. It flows through Reno, Nevada, and after a course of some 120 miles debouches into Pyramid Lake, which has no outlet." 463 U.S. at 114; *see also* S. Rep. No. 101-555, at 8 (1990).

"It has been said that Pyramid Lake is 'widely considered the most beautiful desert lake in North America[and that its] fishery [has] brought it worldwide fame.'" *Nevada*, 463 U.S.

at 114 (citation omitted). The lake and surrounding areas have been the ancestral home of the Pyramid Lake Paiute Tribe for centuries. Two fish species—the cui-ui (a type of sucker fish found only in Pyramid Lake) and the Lahontan cutthroat trout—are of great economic, cultural, and spiritual value to the Tribe. E. Leif Reid, Note, *Ripples From the Truckee: The Case for Congressional Apportionment of Disputed Interstate Water Rights*, 14 Stan. Envtl. L.J. 145, 149 (Jan. 1995); S. Rep. No. 101-555, at 11. Today, the cui-ui is a federally listed endangered species, and the Lahontan cutthroat trout is listed as threatened.

"In 1859 the Department of the Interior set aside nearly half a million acres in what is now western Nevada as a reservation for the area's Paiute Indians. In 1874 President Ulysses S. Grant by executive order confirmed the withdrawal as the Pyramid Lake Indian Reservation. The Reservation includes Pyramid Lake, the land surrounding it, the lower reaches of the Truckee River, and the bottom land alongside the lower Truckee." *Nevada*, 463 U.S. at 115.

The City of Fallon is located southeast of the Pyramid Lake Indian Reservation and has a population of 8,300. It is the county seat of Churchill County, whose population is 25,000. Agricultural production has long been an important part of the County's economic base, due in large part to the Newlands Reclamation Project, one of the earliest projects the Bureau of Reclamation built after passage of the Reclamation Act of 1902, Pub. L. No. 57-161, 32 Stat. 388 (1902). S. Rep. No. 101-555, at 10. The Reclamation Act "directed the Secretary of the Interior to withdraw from public entry arid lands in specified western States, reclaim the lands through irrigation projects, and then to restore the lands to entry pursuant to the homestead laws and certain conditions imposed by the Act itself." *Nevada*, 463 U.S. at 115. The Secretary withdrew from the public domain approximately 200,000 acres in western Nevada, which

ultimately became the Newlands Reclamation Project. "The Project was designed to irrigate a substantial area in the vicinity of Fallon, Nevada, with waters from both the Truckee and the Carson Rivers." *Id.* To divert the water from the Truckee River, the government constructed the Derby Diversion Dam on the lower Truckee and the Truckee Canal. This flow was augmented by water from the Carson River. Thus, both the Truckee and Carson rivers contributed to the Newlands Reclamation Project.

When Captain John C. Fremont recorded his impressions back in 1844,[3] Pyramid Lake was about 50 miles long and 12 miles wide. The lake evaporates approximately four feet—roughly 440,000 acre-feet—per year. The Newlands Project has exacerbated the negative effects of evaporation. Between 1925 and 1967, more than 50 percent of the flow of the Truckee River, an average of approximately 260,000 acre-feet per year, was diverted at Derby Dam to the Newlands Project. The level of Pyramid Lake dropped about 40 feet between 1920 and 1938. The combination of evaporation and diversion thus reduced the surface area of the lake by 20,000 acres, forming a delta that prevents the trout and cui-ui from reaching their spawning grounds in the Truckee River. S. Rep. No. 101-555, at 11.

The Newlands Project has also diverted the waters of the Carson River. "Experience in the early days of the Project indicated the necessity of a storage reservoir on the Carson River, and accordingly Lahontan Dam was constructed and Lahontan Reservoir behind that Dam was created." *Nevada*, 463 U.S. at 116. Several irrigation canals deliver water from the Lahontan Reservoir to farms and ranches in Churchill County. *Id.* Although the original Newlands Project plan

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[3] The Lake "broke upon our eyes like the ocean" and was "set like a gem in the mountains." 1 The Expeditions of John Charles Fremont 604-05 (1970), quoted in *Nevada*, 463 U.S. at 114.

contemplated irrigation of about 200,000 acres, no more than 65,000 acres were irrigated. S. Rep. No. 101-555, at 10.

"The impacts of Newlands Project diversions on the Pyramid Lake fishery triggered protracted and repeated litigation by the Pyramid Lake Paiute Tribe and the United States against the Newlands Project's operator, Truckee-Carson Irrigation District, and virtually every user of Truckee River water in Nevada and California." Id. at 11. In 1913, the United States filed a complaint in the United States District Court for the District of Nevada, for the benefit of both the Newlands Project and the Pyramid Lake Reservation, to quiet title to Truckee River water rights, beginning what became known as the *Orr Ditch* litigation. The government named all the water users on the Truckee River as defendants. The parties reached a settlement agreement in 1935. In 1944, the district court adopted the agreement and entered a final decree. *Nevada*, 463 U.S. at 118.

In 1973, the United States, later joined by the Pyramid Lake Paiute Tribe, sued all those claiming water rights to the Truckee and its Nevada tributaries. In pursuing that action, the plaintiffs sought to obtain more water from the Truckee River for Pyramid Lake and its fisheries. S. Rep. No. 101-555, at 13. The plaintiffs argued that the *Orr Ditch* decree had not concluded the controversy, but had only quantified the Reservation's right to water for agricultural purposes, not for the Lake and fisheries. *Nevada*, 463 U.S. at 143-45. The Supreme Court ultimately rejected the plaintiffs' argument.

Carson River water and water rights have been the subject of litigation as well. In 1925, the United States sued to adjudicate the water rights. After years of litigation, the district court entered a final decree in 1980. *United States v. Alpine Land & Reservoir Co.*, 503 F. Supp. 877 (D. Nev. 1980), *aff'd*, 697 F.2d 851 (9th Cir. 1983), *cert. denied*, 464 U.S. 863 (1983). Among other things, the *Alpine* decree quantified individual water rights, established the rights to

reservoir storage in the upper Carson River watershed, and provided a starting point for an interstate allocation. S. Rep. No. 101-555, at 19.

In February 1967, "the Secretary of the Interior adopted general operating criteria and procedures [OCAP] to govern the exercise of water rights held by the United States in the Truckee and Carson River systems." S. Rep. No. 101-555, at 14. The criteria were intended to "maximize the use of Carson River waters to meet water requirements on the Newlands Project and conserve Truckee flows so as to make as much water available to Pyramid Lake as possible." *Id.*; *see also* 43 C.F.R. § 418.17.

II

THE CURRENT CONTROVERSY

A. The Lahontan Valley Wetlands

For at least 4,000 years, the Lahontan Valley wetlands[4] have supported a wide diversity of wildlife. The wetlands "provide expansive areas of uniformly shallow wetland habitats with waters of varying salinity." WEIS at 3-58. The wetlands shrink and swell continuously, according to season and over geologic time. "Within the span of one season, these wetlands can transform from shallow lakes with clear, fresh water, to shallow, brackish marshes with high salt concentrations." *Id.*

Historically, runoff from the Sierra Nevada, via the Carson River, has provided the main inflow of fresh water to the wetlands. Between 40 and 60 percent of the annual flow has come from runoff from April through July, thereby flushing the wetlands of accumulated salts and other dissolved solids.

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[4] The Lahontan Valley wetlands include the Stillwater Wildlife Management Area, the Stillwater National Wildlife Refuge (located in Churchill County), and the Carson Lake and Pasture.

As inflow of water from the Carson River tapered off in summer and as evaporation increased, the wetlands would shrink. Shallower, more saline marsh habitats remained. *Id.* at 3-59.

These fluctuations in inflow created a variety of habitats and attracted diverse animal species, including ducks, geese, pelicans, wading birds, and shorebirds. *Id.* at 3-59 to 3-60; S. Rep. No. 101-555, at 16. "Over 410,000 ducks, 28,000 geese and 14,000 swans have been observed using the area annually during wet year spring and fall migrations." S. Rep. No. 101-555, at 16. In addition, "Anaho Island National Wildlife Refuge, located in Pyramid Lake, supports the largest nesting colony of American white pelicans in North America . . . . The number of young pelicans produced at Anaho Island dropped from 6,000 in 1987 to 300 in 1989." *Id.* at 17.

As water upstream from the wetlands was diverted for agricultural purposes, the Stillwater marshes, Carson Lake, and Carson sink largely dried up. "Episodic flooding, which had once sent voluminous springtime flows into the marshes was contained by Lahontan Dam and stored in Lahontan Reservoir for irrigation use." WEIS at 3-60. By 1987, less than 15 percent of the wetlands remained, just 15,000 acres. S. Rep. No. 101-555, at 16. Although the situation has improved somewhat, the Newlands Project is widely acknowledged to have contributed substantially to the loss of wetland acreage by eliminating areas entirely or by intercepting "clean water supplies and substituting agricultural drainage." *Id.* Waterfowl still use the remaining wetlands. As the water evaporates, however, "naturally occurring trace elements such as arsenic, boron, lithium, molybdenum, mercury and selenium are becoming concentrated, some reaching toxic levels." *Id.* No one disputes the fact that the survival of the Lahontan Valley wetlands depends upon significantly increased firm supplies of clean water. In fact, even before passage of the Settlement

Act, funds had been appropriated for acquisition of water rights for this purpose. WEIS, at 1-33 to 1-34 ("The Service's Proposed Action and action alternatives would be a continuation of a water rights acquisition program for the Lahontan Valley wetlands which was first initiated by the Service in 1989 under previous appropriations and existing authorities (not Public Law 101-618).").

B. The Settlement Act

"The circumstances behind . . . title [II] are unusually complex, involving interstate water apportionment, management of Federal water storage and diversion facilities, protection and restoration of wetlands and endangered and threatened fish species, and the settlement of Indian tribal claims to water and other interests." S. Rep. No. 101-555, at 8. In short, Congress recognized that everyone wants and needs the water:

> The Truckee is the principal source of water for irrigation, municipal, industrial and domestic uses in the Reno-Sparks metropolitan area and provides water to the Newlands Reclamation Project, near Fallon, Nevada. The Carson River provides water for irrigation and some municipal use in California, and is extensively used for irrigation in Nevada. The Carson is the principal source of water for the Newlands Reclamation Project.

Id. at 9.

United States Senator Harry Reid of Nevada is credited with urging use of a "problemshed" approach regarding the Truckee and Carson basins, "addressing many issues simultaneously, and getting all the key parties that could veto a settlement involved in the negotiating process." Douglas S. Kenney and William B. Lord, ***Analysis of Institutional Innovation in the Natural Resources and Environmental Realm: the Emergence of Alternative Problem-Solving***

Strategies in the American West 77-78 (University of Colorado 1999).[5] Specifically, the Pyramid Lake Paiute Tribe, Sierra Pacific Power Company (representing the interests of Reno-Sparks), the States of Nevada and California, Truckee-Carson Irrigation District (representing irrigation interests and most water rights holders), and the Department of the Interior were invited to the table. Each participant had a different goal:

> The tribe sought increased flows into Pyramid Lake, clear title to the beds and bank of the lake, and funding for fisheries management and habitat restoration. Sierra Pacific was primarily interested in obtaining upriver storage on the Truckee to provide drought protection for

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[5] Senator Reid offered his perspective on the context in which the Settlement Act was enacted in a statement before the Senate Subcommittee on Water and Power of the Senate Energy and Natural Resources Committee:

> The negotiations that led to Public Law 101-618 were historic in my state. They brought together a diverse group of interests that had been pitted against each other in the water wars: electrical power, recreationists, environmentalists, an Indian tribe and the business community of the Greater Reno-Sparks area . . . . Absent from any real participation in this process were the agricultural water users as represented by the Truckee-Carson Irrigation District. This absence was not because they were not invited to the table, but because they withdrew . . . . I note this, Mr. Chairman, because we are now at another crossroads. Agriculture in the Lahontan Valley of northwestern Nevada is an important part of the history of our state. With the growth of Nevada, its overall economic influence has waned, but it is still an economy that I would like to see preserved to the full extent possible . . . . I believe that legitimate agricultural needs can be met, but they must be one part of an overall picture, not the sole snapshot.

Newlands Project, Nevada: Hearing Before the Subcomm. on Water and Power of the Senate Comm. on Energy and Natural Res. Comm., 103rd Cong. 461 (Pt. 2)(April 12, 1994).

> Reno-Sparks . . . . The states wanted greater certainty in regional allocation matters, something that could be achieved by congressional ratification of the interstate water allocation compact. Parties associated with TCID generally wanted to maintain the status quo and their senior water rights. The federal government presumably sought to honor all federal obligations and protect all federal rights in an efficient manner.

Id. at 78.

The final agreement Congress enacted in 1990 set forth the purposes of Title II, the Truckee-Carson Pyramid Lake Water Rights Settlement Act ("Settlement Act"):

> (a) [to] provide for the equitable apportionment of the waters of the Truckee River, Carson River, and Lake Tahoe between the State of California and the State of Nevada;
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> (b) [to] authorize modifications to the purposes and operation of certain Federal Reclamation project facilities to provide benefits to fish and wildlife, municipal, industrial, and irrigation users, and recreation;
>
> (c) [to] authorize acquisition of water rights for fish and wildlife;
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> (d) [to] encourage settlement of litigation and claims;
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> (e) [to] fulfill Federal trust obligations toward Indian tribes;
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> (f) [to] fulfill the goals of the Endangered Species Act by promoting the enhancement and recovery of the Pyramid Lake fishery; and
>
> (g) [to] protect significant wetlands from further degradation and enhance the habitat of many species of

> wildlife which depend on those wetlands, and for other purposes.

Settlement Act § 202.

The Settlement Act directed several actions involving water allocation and usage in the region. For example, Section 204 confirmed the *Alpine Decree*, allocating water from the Carson River between California and Nevada. It also allocated water from the Truckee River and Lake Tahoe between the two states. Likewise, pursuant to Section 205, the Secretary of the Interior is required to negotiate with California and Nevada to reach an agreement governing operation of the reservoirs in the Truckee River basin. These negotiations are to culminate in the Truckee River Operating Agreement ("TROA"). The TROA must provide, among other things, for operation of the Truckee River reservoirs to satisfy dam safety and flood control requirements and to enhance the spawning flows available for the Pyramid Lake fishery.

Section 206(a), the section of the Settlement Act in relation to which the WEIS was prepared, "is intended to lay the foundation for the restoration and permanent protection of Great Basin wetland ecosystems in the Lahontan Valley, including the Stillwater National Wildlife Refuge." S. Rep. No. 101-555, at 24. Subsection (a) directs the Secretary to acquire and manage sufficient water and water rights to support 25,000 acres of wetlands. *Id.* The Secretary is expected to meet this requirement through purchases (only from willing sellers), leases, exchanges, and public and private donations, among other means. *Id.* at 25. Further, "the Secretary is directed to acquire and use water and water rights

in a manner consistent with, among other things, efforts to recover the Pyramid Lake fishery." *Id.*[6]

Section 207 authorizes acquisition of water and water rights for recovery of endangered fish—the cui-ui and the Lahontan cutthroat trout.

Under Section 209, the Newlands Reclamation Project is targeted for improvement. It expands the authorized purposes of the Newlands Project to include recreation and water quality, among others. The Section also requires the Secretary to study the feasibility of improving the conveyance efficiency of Newlands Project facilities.

Groundwater assessment is a key feature of Section 210. The Secretary must, under Section 210(b)(16), assess and remedy significant adverse impacts on domestic groundwater resulting from other provisions of the Settlement Act.

Plaintiffs contend that (1) the Service violated NEPA by approving land and water rights purchases pursuant to Section 206 of the Settlement Act without first preparing a

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[6] Section 206(b) addresses the Secretary's management of the Stillwater National Wildlife Refuge. Section 206(c) requires the Secretary of the Navy to implement measures to improve the efficiency of water usage at the Naval Air Station in Fallon. Section 206(d) involves cost-sharing between the federal and state governments. Under Section 206(e), the Secretary of the Interior is authorized to convey to the State of Nevada certain federal lands in the "Carson Lake and Pasture "area for Nevada's use as a state wildlife refuge. Section 206(f) established the "Lahontan Valley and Pyramid Lake Fish and Wildlife Fund" to receive specified donations which the Secretary of the Interior could direct toward fish and wildlife programs for Lahontan Valley and to protect the Pyramid Lake fishery. The Act further requires the Secretary to "endeavor to distribute benefits from this fund on an equal basis between the Pyramid Lake fishery and the Lahontan Valley wetlands," subject to certain exceptions. Finally, Section 206(g) authorizes the Secretary to convey to Nevada or to Churchill County certain federal lands pursuant to appropriate agreements for fish and wildlife and recreation.

programmatic EIS analyzing the cumulative and synergistic impacts of the Act's interrelated provisions; and (2) the WEIS, prepared in connection with Section 206, failed to comply with NEPA because Defendants did not adequately address the cumulative impacts of actions other than wetlands acquisitions, failed to study impacts to groundwater, and failed to define and study a reasonable range of alternatives.

III

STANDARD OF REVIEW

The district court's order granting or denying a motion for summary judgment is reviewed de novo. *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1211 (9th Cir. 1998). NEPA does not contain a separate provision for judicial review; we therefore review an agency's compliance with NEPA under the Administrative Procedure Act ("APA"), *5 U.S.C. § 706*(2)(A). *N.W. Res. Info. Ctr., Inc. v. Nat'l Marine Fisheries Serv.*, 56 F.3d 1060, 1066 (9th Cir. 1995). An agency's decision not to prepare an EIS is reviewed under the arbitrary-and-capricious standard. *Blue Mountains*, 161 F.3d at 1211. We defer to a "fully informed and well-considered" agency decision, but "we need not forgive a 'clear error of judgment.'" *Id.* (quoting *Save the Yaak Comm. v. Block*, 840 F.2d 714, 717 (9th Cir. 1988), and *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 378, 104 L. Ed. 2d 377, 109 S. Ct. 1851 (1989)).

"'Whether a particular deficiency, or combination of deficiencies, in an EIS is sufficient to warrant holding it legally inadequate, or constitutes merely a "fly-speck," is essentially a legal question, reviewable de novo.'" *N. Alaska Envtl. Ctr. v. Lujan*, 961 F.2d 886, 889 (9th Cir. 1992) (quoting Or. *Envtl. Council v. Kunzman*, 817 F.2d 484, 493 (9th Cir. 1987); see also *Salmon River Concerned Citizens v. Robertson*, 32 F.3d 1346, 1356 (9th Cir. 1994) ("We review the district court's summary judgment that the FEIS is legally

adequate under NEPA and the CEQ [Council on Environmental Quality] regulations *de novo*.").

We apply a "rule of reason" standard when reviewing the adequacy of an agency's EIS. Under this standard, we ask "whether an EIS contains a reasonably thorough discussion of the significant aspects of the probable environmental consequences." *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974). "This standard is not susceptible to refined calibration." *California v. Block*, 690 F.2d 753, 761 (9th Cir. 1982). Rather, we make "a pragmatic judgment whether the EIS's form, content and preparation foster both informed decision-making and informed public participation." *Id.* Review under the rule of reason and for abuse of discretion "are essentially the same." *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1376 (9th Cir. 1998) (citing *Marsh*, 490 U.S. at 377 n. 23).

Our role is to ensure that the agency has taken a "hard look." *Or. Natural Res. Council v. Lowe*, 109 F.3d 521, 526 (9th Cir. 1997). We are not free to "impose upon the agency [our] own notion of which procedures are 'best' or most likely to further some vague, undefined public good." *Vt. Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc.*, 435 U.S. 519, 549, 55 L. Ed. 2d 460, 98 S. Ct. 1197 (1978). We must, however, strictly interpret the procedural requirements in NEPA and the CEQ regulations "to the fullest extent possible" consistent with the policies embodied in NEPA. *Lathan v.* Brinegar, 506 F.2d 677, 687 (9th Cir. 1974) (en banc) (citing 42 U.S.C. § 4332(1)). "Grudging, pro forma compliance will not do." *Id.* at 693.

IV

DISCUSSION

A. *NEPA*

"NEPA 'is our basic national charter for protection of the environment.' " *Blue Mountains*, 161 F.3d at 1215 (quoting

40 C.F.R. § 1500.1(a)). The Act requires a federal agency to prepare a detailed EIS for all "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). "Significance" is a function of the context and the "intensity" of the action. 40 C.F.R. § 1508.27.[7] As part of an agency's determination of the intensity of the impact, numerous factors should be considered, including the "unique characteristics of the geographic area such as proximity to . . . prime farm-lands, wetlands, . . . or ecologically critical areas." *Id.* § 1508.27(b)(3). The agency should also consider "whether the action is related to other actions with individually insignificant but cumulatively significant impacts." *Id.* § 1508.27(b)(7). The regulation adds that an action is "significant" if "it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts." *Id.* (emphasis added).

Title 42 U.S.C. § 4332(2)(C) is "one of the 'action-forcing' provisions intended as a directive to 'all agencies to assure consideration of the environmental impact of their actions in decisionmaking.'" *Kleppe v. Sierra Club*, 427 U.S. 390, 409, 49 L. Ed. 2d 576, 96 S. Ct. 2718 (1976) (quoting Conference Report on NEPA, 115 Cong. Rec. 40416 (1969)). Compliance with this requirement "ensures that the agency . . . will have available, and will carefully consider, detailed information concerning significant environmental impacts; it

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[7] NEPA created the CEQ, which promulgated regulations to promote compliance with the "action-forcing" requirements of NEPA § 102(2). 40 C.F.R. § 1500.1. The regulations define the terms of NEPA and set forth the responsibilities of federal agencies. Although initially advisory in nature, the regulations were made binding on the administrative agencies by Executive Order No. 11991, 3 C.F.R. § 124. "CEQ's interpretation of NEPA is entitled to substantial deference." *Andrus v. Sierra Club*, 442 U.S. 347, 358, 60 L. Ed. 2d 943, 99 S. Ct. 2335 (1979).

also guarantees that the relevant information will be made available to the larger public audience." *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349, 104 L. Ed. 2d 351, 109 S. Ct. 1835 (1989), *quoted in Blue Mountains*, 161 F.3d at 1212; *see also Found. on Econ. Trends v. Heckler*, 244 U.S. App. D.C. 122, 756 F.2d 143, 147 (D.C. Cir. 1985) ("NEPA's dual mission is thus to generate federal attention to environmental concerns and to reveal that federal consideration for public scrutiny."). NEPA also "emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure informed decision making to the end that 'the agency will not act on incomplete information, only to regret its decision after it is too late to correct.'" *Blue Mountains*, 161 F.3d at 1216 (quoting *Marsh*, 490 U.S. at 371).

B. *The Proposed Action*

In the draft WEIS, the Service proposed acquisition of a permanent and reliable supply of water to provide an average of 125,000 acre-feet of water annually to sustain 25,000 acres of wetland habitat at four designated primary wetland habitat areas: (1) Stillwater National Wildlife Refuge, (2) Stillwater Wildlife Management Area, (3) Carson Lake, and (4) Fallon Paiute-Shoshone Indian Reservation. In addition to purchasing water rights from willing sellers, the Service considered other methods of acquisition including leasing, donation, transfer, and exchange. The Service concluded that "acquisition of water rights from Newlands Project owners is the most readily available source of water for wetlands maintenance." U.S. Department of the Interior Fish and Wildlife Service, *Water Rights Acquisition Program for Pyramid Lake and Lahontan Valley Wetlands, Nevada*, Report to the United States Congress, November 1993.

The Service evaluated five alternatives, four "action" alternatives and one "no-action" alternative. On November 4,

1996, the Regional Director for Region I of the Service issued the Record of Decision ("ROD") documenting the decision and rationale for selecting Alternative 5. Under Alternative 5, the Service would supplement drainwater and spillwater by (1) purchasing up to 55,000 acre-feet of water rights in the Carson Division, in addition to the existing water rights acquisition program of 20,000 acre-feet, for a combined total of 75,000 acre-feet; (2) leasing water from water-rights owners as available; (3) purchasing water rights from the Middle Carson River corridor, up-river from the Lahontan Reservoir; (4) using treated sewage effluent as available; (5) using conserved U.S. Navy water as available; and (6) pumping groundwater near the primary wetland areas. The 75,000 acre-feet of water rights included up to 4,000 acre-feet of water rights that might be acquired in trust for tribal wetlands. ROD at 5. The Service explained that Alternative 5 would distribute the impact of acquisitions across a greater area through its reliance on a variety of water sources. Notably, "Alternative 5 will minimize the conversion of irrigated farmland to non-agricultural uses, minimize adverse impacts to agricultural production and the agricultural economy, and minimize potential impacts to groundwater discharge." ROD at 8.

C. *Plaintiffs' Concerns*

The City of Fallon operates its own municipal water system and provides domestic, commercial, and industrial water service to its residents. Churchill County residents rely on thousands of wells that tap shallow and intermediate aquifers. Fallon's municipal water system is served and supplied by wells whose aquifers are recharged, at least in part, through surface water diverted through the Newlands Project. The city also owns surface water rights adjudicated under the *Orr Ditch* and *Alpine* decrees. Fallon is particularly

concerned about the effects that reallocation of water rights under the Settlement Act will have on the city's water supply.

D. *Programmatic EIS*

Plaintiffs argue that, in refusing to prepare a programmatic EIS, the Department of the Interior and its sub-agencies, notably the Fish and Wildlife Service, violated NEPA's requirement that "[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a). They maintain that several of the directives contained in the Settlement Act will impose cumulative and synergistic impacts on water allocation and water quality within the Newlands Project and Lahontan Valley. As water supply concerns are at the core of the Settlement Act, they contend, the Department of the Interior was required to assess in a single EIS the combined effects of reallocations away from the Newlands Project (i.e., from Churchill County and Fallon).

Although NEPA does not address the question, the CEQ regulations do call for preparation of a programmatic EIS in appropriate circumstances:

> Environmental impact statements may be prepared, and are sometimes required, for broad Federal actions such as the adoption of new agency programs or regulations (§ 1508.18). Agencies shall prepare statements on broad actions so that they are relevant to policy and are timed to coincide with meaningful points in agency planning and decisionmaking.

40 C.F.R. § 1502.4(b). The regulations specify the "Major Federal actions" that are subject to NEPA's EIS requirement. The adoption of programs constitutes one category of "Federal action" and is defined by the regulations as follows: "a group of concerted actions to implement a specific policy or plan; systematic and connected agency decisions allocat-

ing agency resources to implement a specific statutory program or executive directive." 40 C.F.R. § 1508.18(b)(3). The regulations suggest that agencies "may find it useful "to evaluate those "broad actions (including proposals by more than one agency)" in one of three possible ways:

> (1) Geographically, including actions occurring in the same general location, such as body of water, region, or metropolitan area.
>
> (2) Generically, including actions which have relevant similarities, such as common timing, impacts, alternatives, methods of implementation, media, or subject matter.
>
> (3) By stage of technological development including federal or federally assisted research, development or demonstration programs for new technologies which, if applied, could significantly affect the quality of the human environment.

40 C.F.R. § 1502.4(c),

Moreover, through a process called "tiering," agencies can "relate broad and narrow actions and . . . avoid duplication and delay." *Id.* § 1502.4(d). Tiering enables an agency to cover

> general matters in broader environmental impact statements (such as national program or policy statements) with subsequent narrower statements or environmental analyses (such as regional or basin-wide program statements or ultimately site-specific statements) incorporating by reference the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

Id. § 1508.28. The regulation endorses tiering when the agency moves from the general to the specific or from the specific to a supplement. *Id.*

In *Kleppe v. Sierra Club*, 427 U.S. 390, 409, 49 L. Ed. 2d 576, 96 S. Ct. 2718 (1976), the Supreme Court acknowledged that NEPA may require a "comprehensive" EIS "in certain situations where several proposed actions are pending at the same time." In *Kleppe*, several environmental organizations sued the Department of the Interior for failing to prepare a programmatic EIS on coal mining-related actions such as issuing coal leases, approving mining plans, and otherwise enabling private companies and public utilities to develop coal reserves on federally owned or controlled land located in the North Great Plains region.[8] The Department of the Interior had prepared a programmatic EIS on the entire proposed national coal-leasing program and had prepared EISs for individual actions in the region, including approval of mining plans and issuance of right-of-way permits. Plaintiffs maintained that NEPA required a comprehensive EIS for the region before officials could allow further development. *Id.* at 395.

The Court held that § 102(2)(C) of NEPA did not require a regional EIS in the absence of a proposal for action of regional scope. *Id.* at 399. In addition, the Court found that Plaintiffs' "desire for a regional environmental impact statement [could not] be met for practical reasons. "*Id.* at 401. Because a regional proposal would "define fairly precisely the scope and limits of the proposed development," *Id.* at 402, the Court concluded that in the absence of such a proposal, "there would be no factual predicate for the production of an environmental impact statement of the type envisioned by NEPA." *Id.*

Further, the Court held that "[a] court has no authority to . . . determine a point during the germination process of a

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[8] Plaintiffs identified the region as encompassing portions of four states: northeastern Wyoming, eastern Montana, western North Dakota, and western *South Dakota*, 427 U.S. at 396.

potential proposal at which an impact statement should be prepared." 427 U.S. at 406. A final EIS is required only at the time the agency "makes a recommendation or report on a proposal for federal action." *Id.* (quoting *Aberdeen & Rockfish R.C. v. SCRAP*, 422 U.S. 289, 320, 95 S. Ct. 2336, 45 L. Ed. 2d 191 (1975)).

Finally, the Court recognized that "when several proposals . . . that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental impacts must be considered together." *Id.* at 410. According to the Court, "only through comprehensive consideration of pending proposals can the agency evaluate different courses of action." *Id.* However, the Court stated that the determination of whether cumulative environmental impacts exist so as to require a comprehensive impact statement "is a task assigned to the special competency of the appropriate agencies." *Id.* at 413-14. Therefore, a party challenging an agency's refusal to prepare a comprehensive EIS must show that the agency acted arbitrarily in making that determination. *Id.* at 412.

Since *Kleppe*, numerous litigants have urged courts to require that an agency prepare a programmatic EIS. In *Nat'l Wildlife Fed'n v. Appalachian Reg'l Comm'n*, 219 U.S. App. D.C. 295, 677 F.2d 883, 884 (D.C. Cir. 1981), for example, the court addressed whether NEPA required a programmatic EIS "for an ongoing, but mostly completed, federally assisted highway development project." In that case, a number of highways still needed to be built to finish the Appalachian system, but the court noted that these fragments "only fill in disjointed gaps left in a highway network thoroughly defined now by old roads in place plus new roads already completed or under construction." *Id.* at 887. Although site-specific EISs were planned for most of the remaining roads,

the plaintiffs sought to require the defendant to first prepare a programmatic EIS for the entire project.

The D.C. Circuit noted that a "multi-phase federal program like a major highway development is a probable candidate for a programmatic EIS," as the CEQ guidelines confirmed. *Id.* at 888. Reviewing whether an "agency's environmental vision" was arbitrary or capricious, the court listed two inquiries that were particularly helpful in the analysis: "(a) Could the programmatic EIS be sufficiently forward looking to contribute to the decisionmakers' basic planning of the overall program? and, (b) Does the decisionmaker purport to 'segment' the overall program, thereby unreasonably constricting the scope of primordial environmental evaluation?" *Id.* at 889; *see also Heckler*, 756 F.2d at 159 ("[A] programmatic EIS should be prepared if it can be forward-looking and if its absence will obstruct environmental review."). NEPA does not require an EIS to supply an after-the-fact justification for a project. NEPA does prohibit an agency from breaking up a "large or cumulative project into smaller components in order to avoid designating the project a major federal action." *Nat'l Wildlife Fed'n*, 677 F.2d at 890 (citation and internal quotation marks omitted). The court explained that an agency could not escape the existence of a comprehensive program with cumulative environmental effects by "disingenuously describing it as only an amalgamation of unrelated smaller projects." *Id.* Decision-makers could, however, reduce "a once vast and variegated program" to "a few uncompleted, smaller-scale enterprises." *Id.* The court found a programmatic EIS unnecessary given the reality of the existing 1700 miles of decentralized highway construction in Appalachia and the absence of any indication of arbitrary action in using site-specific EISs for the remaining projects. *Id.* at 891-92.

In *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985), we examined the Forest Service's decision not to prepare a

comprehensive EIS analyzing the combined effects of construction of a timber road in a formerly roadless area of the Nez Perce National Forest in Idaho and the resulting timber sales that the road would facilitate. We acknowledged the considerable discretion afforded agencies in defining the scope of an EIS and affirmed NEPA's requirement that an agency consider the effects of several related actions in a single EIS in appropriate circumstances. "Not to require this would permit dividing a project into multiple 'actions,' each of which individually has an insignificant environmental impact, but which collectively have a substantial impact." *Id.* at 758.

The CEQ regulations require that so-called "connected" or "cumulative" actions be considered in a single EIS. 40 C.F.R. § 1508.25(a)(1), (a)(2); *cf. City of Tenakee Springs v. Block*, 778 F.2d 1402, 1407 (9th Cir. 1985) ("Where there are large-scale plans for regional development, NEPA requires both a programmatic and a site-specific EIS. 40 C.F.R. § 1508.28, 1502.20[.]") (additional citations omitted). Plaintiffs here do not argue that the sections of the Settlement Act regarding water rights, usage, and allocations are "connected" actions within the meaning of the regulations. Rather, they maintain that the actions are "cumulative." Cumulative actions are defined as "actions, which when viewed with other proposed actions have cumulatively significant impacts." 40 C.F.R. § 1508.25(a)(2). A cumulative environmental impact "results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such other actions." 40 C.F.R. § 1508.7. The regulatory definition includes impacts resulting from "individually minor but collectively significant actions taking place over a period of time." *Id.*

In *Thomas*, we found sufficient evidence in the record to suggest that the road and timber sales would have significant

cumulative effects, including sediment deposits in the Salmon River (detrimental to fish) and destruction of critical habitat for the endangered Rocky Mountain gray wolf. The Fish and Wildlife Service had submitted comments regarding these impacts to the Forest Service, and we found that the comments raised "substantial questions" about the cumulative effects of the road and timber sales, thus requiring an EIS analyzing the potential impact. *Thomas*, 753 F.2d at 759. Considering the cumulative effects after the road was already approved, moreover, would not satisfy NEPA. *Id.* at 760. We also rejected the Forest Service's argument that the timber sales were too uncertain and too far in the future to analyze their impacts together with those of the road. "[I]f the sales are sufficiently certain to justify construction of the road, then they are sufficiently certain for their environmental impacts to be analyzed along with those of the road." *Id.*

In *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990), we stated that an agency must prepare both a programmatic EIS and a site-specific EIS "where there are large scale plans for regional development." At least when the projects in a particular geographical region are foreseeable and similar, NEPA calls for an examination of their impact in a single EIS. *Id.* Thus, we held that the Forest Service's failure to analyze the effects of the timber harvesting plans scheduled over the life of the contract between the Forest Service and Alaska Pulp Company raised serious questions about the adequacy of a supplemental EIS.

In this case, Plaintiffs argue that NEPA required the Service to prepare a programmatic EIS "analyzing the Settlement Act components affecting future water allocations to the Newlands Project." Plaintiffs maintain that Congress's integrated mandate in the Settlement Act constitutes a regional plan addressing the "use of water from two rivers, the Truckee and Carson." S. Rep. No. 101-555, at 8. Plaintiffs are correct; acquisition and allocation of water rights are the

core goals of several Settlement Act provisions. The Senate Report states that the Act "concerns the apportionment and use of water from [the Truckee and Carson] rivers." *Id.* at 8. The text of the Act, moreover, purports to resolve long-standing issues in this particular region involving this scarce resource. In addition, in 1992, the Special Assistant to the Secretary of the Interior, William Bettenberg, discussed formulating an overall strategy to implement the Settlement Act in a memorandum to the relevant sub-agencies, stating that the "issues are complex and interrelated and in some cases the objectives of the law are at cross purposes with one another and place substantial competing demands on scarce water resources. "Mr. Bettenberg indicated that strategic planning was then feasible because "enough experience has been gained under the Act to appreciate its many nuances." Furthermore, the Fish and Wildlife Service, the Bureau of Indian Affairs, and the Bureau of Reclamation had "built up considerable expertise regarding the law, the water resource situation in the area, and other problems with which we must deal."

The Pyramid Lake fisheries and Lahontan Valley wetlands both require Newlands Project water. *Id.* at 10. It is not readily apparent how the Service proposed to get a complete picture of the cumulative environmental impacts without including in its analysis the water-related actions and activities already underway or anticipated. It would seem quite reasonable, in fact, for the responsible agencies to analyze the actions required under the Settlement Act and their cumulative impacts in one document. Early in the implementation process, the agencies indicated that they would attempt a broad analysis, taking into account those Settlement Act directives aimed at water usage. Ultimately, however, they rejected this approach. The Service offers several arguments in support of its course of action.

The Service contends that it did not prepare a programmatic EIS because it had no obligation under NEPA to do so. None of the actions contemplated under sections 205, 207, and 209 of the Act had ripened into "proposals. "As Plaintiffs respond, however, the regulations do not require a final proposal. Rather, under 40 C.F.R. § 1508.23, a proposal "exists at that stage in the development of an action when an agency subject to the Act *has a goal and is actively preparing to make a decision on one or more alternative means of accomplishing that goal" so that "the effects can be meaningfully evaluated." (Emphasis added.) "Reasonable forecasting and speculation is thus implicit in NEPA . . . ." City of Davis v. Coleman*, 521 F.2d 661, 676 (9th Cir. 1975). Indeed, NEPA requires that the agency evaluate a project's environmental consequences early in the planning process. *Friends of the Earth, Inc. v. Coleman*, 518 F.2d 323, 327 (9th Cir. 1975). "This requirement is tempered, though, by the statutory command that we focus upon a proposal's parameters as the agency defines them." *Block*, 690 F.2d at 761 (citing *Kleppe*, 427 U.S. at 406-07). It simply makes sense to "defer detailed analysis until a concrete development proposal crystallizes the dimensions of a project's probable environmental consequences." *Id.*

Plaintiffs further maintain that a number of the actions contemplated under the Settlement Act had matured into" proposals." For example, in 1995, the Department of the Interior published a Notice of Intent to Prepare an EIS "on a broad-based water management program." The program was intended to "consolidate three closely related activities contemplated in Public Law 101-618," notably, the wetlands management plan under Section 206(a), recovery of the Pyramid Lake fish under Section 207(a), and modifications to the Newlands Project Operating Criteria and Procedures (OCAP). The Notice cited "an extensive list of proposed and active Federal and non-Federal projects that may have

cumulative impacts," which would also be considered in the EIS, including:

> the proposed TROA; a revised O&M agreement; water rights acquisitions to enhance water quality of the lower Truckee River; water rights acquisitions to sustain on a long term average of 25,000 acres of wetlands in Lahontan Valley; interim changes to the existing OCAP for the Newlands Irrigation Project; Lahontan Reservoir storage agreements; a pilot project to acquire Truckee Division water to enhance populations of endangered cui-ui, and any Upper Carson water acquisitions.

The Department itself characterized the actions as proposals. As Plaintiffs note, the Department has called the TROA a proposal since at least 1996, despite delays in producing the EIS. In short, Plaintiffs have submitted sufficient evidence to show that many of the actions required under the Settlement Act met NEPA's definition of a proposal. Defendants' contention that it was not obligated to prepare a programmatic EIS because other projects required by the Settlement Act were not sufficiently definite to permit meaningful review is unpersuasive.

But whether or not the actions and activities anticipated as a result of the Settlement Act were "proposals "is somewhat off-point. Plainly, the officials responsible for implementing the Settlement Act believed for at least several years that it made good sense to analyze several provisions of the Act as a whole, especially the sections requiring water rights acquisitions and allocations. It also appears that a programmatic EIS was the vehicle for the analysis. It is just as evident that the officials changed their minds. Defendants offer many reasons why NEPA did not require them to proceed by way of a programmatic EIS, many of which Plaintiffs adeptly refute. The regulations and case law would support a decision by the Service to prepare a programmatic EIS, had it decided to prepare one. Indeed, had we been

charged with the decision, we may have elected to prepare a programmatic EIS first. The problem, of course, is that it was not our decision to make.

Although we can see that the Service's decision was a close call, the record does not support a conclusion that the agency's goal was to minimize the possible cumulative environmental impacts by segmenting the wetlands water rights acquisition program from the analysis of other foreseeable actions. The Settlement Act is unwieldy and potentially contradictory in its various requirements. In addition, agricultural interests will unavoidably feel much of the impact of the changes that Congress has ordered. We cannot, as Plaintiffs may wish, sanction the use of NEPA's EIS requirements to challenge the policy goals served by the Settlement Act. *See, e.g., Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766, 777, 75 L. Ed. 2d 534, 103 S. Ct. 1556 (1983) ("The political process, and not NEPA, provides the appropriate forum in which to air policy disagreements."). The fact that we might proceed differently does not compel us to order the Service to prepare a programmatic EIS instead of, or along with, the WEIS. We agree with the district court that the Service took a "hard look" and that its decision not to proceed with a programmatic EIS was not arbitrary.

E. *Wetlands EIS*

Plaintiffs argue that the WEIS failed to assess the cumulative impacts of actions other than the proposed acquisition, failed to address the impacts on groundwater resources adequately, and impermissibly segmented the water rights acquisitions for the Stillwater wetlands from the conservation plan for managing the wetlands.

1. *Cumulative Impacts*

Plaintiffs argue that the Service failed to analyze the cumulative impacts of Section 206 acquisitions together with all the other reasonably foreseeable Settlement Act actions affecting allocations for the Newlands Reclamation Project and the wetlands. According to Plaintiffs, the purchase of water rights for Pyramid Lake fish, recoupment, the TROA, and OCAP revisions are among the actions that should have been assessed cumulatively. Plaintiffs contend that the lengthy list of impacts provided by the Service cannot substitute for the required analysis. For example, the Service failed to state the full amount of agricultural land that would be lost upon implementation of all relevant Settlement Act provisions, not just Section 206(a). The magnitude of combined potential agricultural losses, according to Plaintiffs, would be "staggering." The WEIS also failed to quantify the cumulative effects of acquisitions for the wetlands and for cui-ui recovery. As for the TROA, Plaintiffs maintain that the WEIS did not address the foreseeable negative impacts on the cui-ui, which may well prompt acquisition of more Newlands Project water rights. That fact would likely have significant implications for the wetlands acquisitions.[9] Plaintiffs further maintain that, while the Service acknowledges that the cumulative effects of implementing the Settlement Act are likely to adversely impact groundwater recharge in the Lahontan Valley, it did not analyze or quantify the extent of the problem.

Defendants must do more than just catalogue "relevant past projects in the area." *City of Carmel-by-the-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997), quoted in *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 809-10 (9th Cir. 1999). The EIS "must

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[9] Plaintiffs also complain that the WEIS did not analyze the combined effects of Settlement Act provisions on vegetation and air quality.

also include a 'useful analysis of the cumulative impacts of past, present and future projects.'" *Id.* This means a discussion and an analysis in sufficient detail to assist "the decision-maker in deciding whether, or how, to alter the program to lessen cumulative impacts." *Id.* Thus, in *Muckleshoot*, we did not find the "cumulative effects" sections in the EIS to be adequate because they provided only "very broad and general statements devoid of specific, reasoned conclusions." 177 F.3d at 811. Merely indicating the amount of land to be exchanged, for example, and whether the land would be subject to commercial harvest, followed by an optimistic conclusion fell short of the "useful analysis" we required when the EIS "contained no evaluation whatsoever of the impact on natural resources of timber harvesting on the lands transferred to Weyerhaeuser," nor any assessment of the impact on surrounding areas of such harvesting. *Id.*

The Service contends that it did consider the potential loss of Newlands Project land under each of the five alternatives discussed in the WEIS but that to look beyond the acquisition proposal to the cumulative effects on agricultural lands resulting from other Settlement Act actions would be "pure speculation." The Service disputes Plaintiffs' assertions about the potential total amount of agricultural losses, although it does not suggest any alternative estimates. The Service did explain in the WEIS, however, that several forthcoming agreements or actions could possibly make it unnecessary to acquire any Truckee River water rights. Specifically, the Truckee River Water Quality Settlement Agreement, OCAP adjustments, the TROA, and the water rights acquired for the wetlands, individually or in combination, could well reduce the amount of agricultural losses. Under these circumstances and given these uncertainties, we do not find the absence of an estimate of the total reduction in agricultural acreage arbitrary or capricious.

We have reviewed Chapter 4 of the WEIS, in which the Service analyzed the environmental consequences of the action alternatives. The Service first considered the impacts of the alternatives on the Newlands Project operations and infrastructure, water resources, vectors, erosion, agricultural pests, air quality, wetlands, vegetative communities, fish, birds, agriculture, farmland, the local economy, recreation, population characteristics, land use, land values, property taxes, municipal services, social values, and Indian trust assets and cultural resources. The WEIS then examined the cumulative effects on environmental resources in the study area from past, present, and reasonably foreseeable future actions or activities, including the relevant provisions of the Settlement Act (both Titles I and II). The WEIS identified the following actions or activities: (1) acquisition of water rights for the Fallon Paiute-Shoshone Reservation agricultural lands (Section 102); (2) closure of the TJ Drain (Section 106); (3) negotiation of the TROA (Section 205(a)); (4) the comprehensive management plan for the Stillwater National Wildlife Refuge (Section 206(b)); (5) Fallon Naval Air Station studies of land-management options to reduce water use for aircraft safety purposes (Section 206(c)(3)); (6) transfer of Carson Lake and pasture to the State of Nevada for use as a wildlife refuge (Section 206(e)); (7) recovery plans for endangered and threatened Pyramid Lake fish (Section 207(a)); (8) recoupment of water diverted from the Truckee River in excess of amounts permitted by the OCAP during the period from 1973 to 1987 (Section 209(j)); (9) possible adjustments to the 1988 OCAP (Section 209(j)(2)); (10) the Truckee River Water Quality Settlement Agreement; (11) the expansion of Fallon Naval Air Station as the Navy relocates various operations to this location; (12) the effects of predicted growth and diversification of Churchill County; (13) the effects of the transfer of the Indian Lakes area, consisting of approximately 9,355 acres, to Churchill County and, subsequently, to the City of Fallon (Section 206(g)); (14)

acquisition of 20,000 acre-feet of water rights in the Carson Division to the primary wetlands; and (15) agricultural production.

In each of the fifteen subsections identified in the WEIS, the Service discussed the predicted impacts and provided its best assessment of what might happen and how the Service and other agencies would likely respond. In addition, the Service summarized the potential cumulative impacts of the above actions and activities if the "preferred alternative" were not selected, then summarized the potential impacts of the actions and activities if the Service adopted the preferred alternative. Under the preferred alternative, the Service predicted that agricultural production would be significantly adversely affected. The Service stated unequivocally in the "Unavoidable Adverse Effects" section that the preferred alternative was expected to cause unavoidable adverse impacts on the agricultural economy, agricultural-dependent wildlife, and "farm preservation values" of community members, ultimately changing the very character of the community with the completion of the water rights acquisition program. In short, the WEIS recognized that agricultural interests would bear the brunt of the Settlement Act directives.

Plaintiffs have pointed out errors and missing information in the WEIS. We could certainly "fly-speck" this chapter of the WEIS and find instances where the inclusion of quantitative data would benefit the Service and the public. As with the programmatic EIS discussed above, if we were preparing the WEIS, we might insist on additional detail. That is not our role, of course. Rather, we review the legal sufficiency of the WEIS. We conclude that the Fish and Wildlife Service has taken the requisite "hard look" at the cumulative environmental impacts of the action alternatives and has not violated NEPA.

2. *Impacts on Groundwater Resources*

Plaintiffs argue that the WEIS failed to address adequately the impacts that the acquisitions would have on groundwater resources. They contend that the Service relied on studies that either established existing conditions without analyzing the possible impacts or called for additional studies due to incomplete understanding of the hydrologic system. In response to comments on the draft WEIS regarding this analytical deficiency, the Service acknowledged this fact ("the Service concurs that the existing groundwater reports do identify a need for further study of the groundwater resources") and encouraged "local interests" to support funding the studies that the U.S. Geological Service proposed. WEIS at 6-105.

As the Service notes, the studies on which it relied were not definitive, but it never represented that they were. The studies were sufficient, however, to permit the Service to make a reasoned decision as to which action alternative to select. Notably, the Service reviewed existing studies regarding groundwater aquifers in Churchill County and sponsored new studies of the groundwater in the area. One of these studies (Seiler & Allander) used existing and newly drilled observation wells to locate the principal recharge areas for the shallow groundwater aquifer in Churchill County. As the Service explains, this study enabled it to analyze the acquisitions potential groundwater impacts from different locations in the Carson Division.

The second study, the Maurer Report, developed a conceptual model of the entire groundwater system in the Carson Division and surrounding area. According to the report, the three factors that affected groundwater recharge were the area from which the Service acquires the water rights, seepage from the Newlands Project distribution system, and consumptive use by crops. The Service used Maurer's model to analyze the potential impacts of each of

the action alternatives. Recognizing the limits of the study, the Service was nevertheless able to make an informed decision.

Additional studies undoubtedly would fill in relevant details regarding groundwater resources under each of the action alternatives. Nonetheless, the Service relied on current information, not outdated studies or technology. We conclude that the WEIS provides a reasoned analysis of the impacts on groundwater consistent with the requirements under NEPA.

3. *"Segmentation"*

Plaintiffs argue that the WEIS should have covered the water rights acquisitions for the wetlands together with the conservation plan that dealt with management of the wetlands. According to Plaintiffs, these components were interrelated and segmenting analysis of the environmental impacts was not consistent with NEPA. However, other than list the possible ways that the management plan might affect the water rights acquisition plan, Plaintiffs do not show that the Service acted arbitrarily or capriciously.

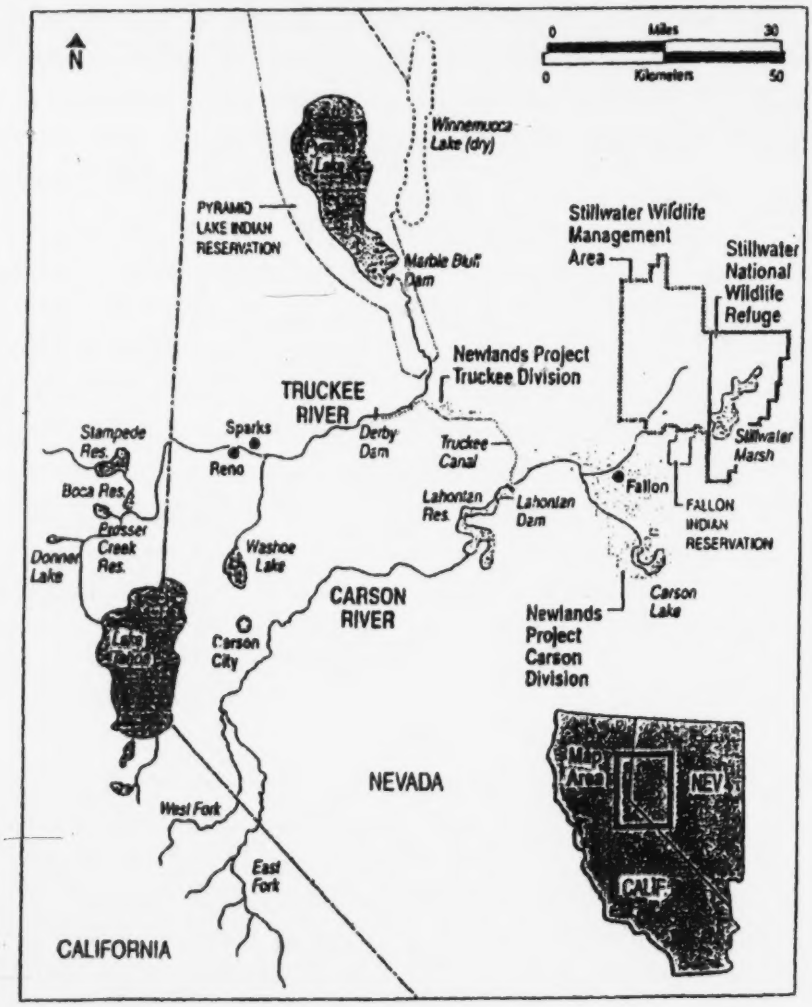
AFFIRMED.

SNEED, *Circuit Judge*, Concurring:

I concur in the result reached by Judges Paez and Graber. I write separately to emphasize the need for a comprehensive resolution of California and Nevada interests in the Truckee and Carson rivers. Such a resolution is the only action that can secure a degree of stability. Repetitive and contentious disagreements over the use of the limited water supply to satisfy various rights, wants, and demands are sure to continue. A comprehensive cumulative impact study, while not legally required in this case, is nonetheless essential given the scarce water supply. One hopes that the Truckee River Operating Agreement, currently under negotiation, will solve the comprehensive allocation of the Truckee River waters.

Despite the well-reasoned majority opinion, the consequence is that a dissatisfaction with the allocation of the water between parties is likely to follow. This may be a situation in which we simply cannot muster the political will to resolve the various claims. Congress noted all too late that "in retrospect, it is clear that the limited benefits of the Truckee River were promised by the United States to too many interests." S. Rep. No. 101-155 (1990), at 13.

To aid those who might be interested in this disposition, a map of the affected areas is appended.



APPENDIX C

UNITED STATES DISTRICT COURT
DISTRICT OF NEVADA

[Filed Mar. 31, 2000]

CV-N-95-00724-ECR-RAM
(Base File)
CV-N-96-00146-ECR-RAM
CV-N-96-00754-ECR-RAM
(Consolidated Cases)

CHURCHILL COUNTY,
CITY OF FALLON,
Plaintiffs,

v.

BRUCE BABBITT, in his official capacity
as Secretary of the Interior; *et al.*
Defendants.

ORDER

The Court now considers the federal defendants' Renewed Motion for Summary Judgment (#132) addressing whether the National Environmental Policy Act (NEPA) requires the federal government to perform a programmatic environmental impact statement before it may implement any section of the Truckee-Carson-Pyramid Lake Water Settlement Act, Title II of Public Law 101-618 [hereinafter Settlement Act]. The plaintiffs filed an opposition (#134) and Cross-Motion for Summary Judgment on the federal defendants failure to comply with NEPA in refusing to prepare a programmatic environmental impact statement and approving water rights acquisitions under section 206 of the Settlement Act based upon a defective environmental impact statement. The federal

defendants filed a reply in support of their renewed motion for summary judgment on the programmatic EIS claims and opposition to the plaintiffs' cross-motion for summary judgment and cross-motion for summary judgment on the wetlands EIS claim (#145). The plaintiffs filed a reply (#155) to defendants' memorandum in opposition to plaintiffs' cross-motion and cross-motion for summary judgment on the wetlands EIS claim.

This Court notes at the outset that it is not our role, as the Supreme Court has stated, to substitute our judgment for that of the agency as to the environment consequences of the agency's actions. *See Kleppe v. Sierra Club*, 427 U.S. 390, 410 fn. 21 (1976). We are also not required to assess whether the course of action chosen by the Department of the Interior is the best course of action available. Our role is limited. It is simply to ensure that the Department of the Interior has taken a "hard look" at the environmental consequences of its proposed actions and that the agency's final environmental impact ("FEIS") meets the procedural safeguards established by the National Environmental Policy Act.

Background

The history of conflict over water resources within and between the states of Nevada and California is long and complicated. Lake Tahoe lies in the Sierra Nevada, straddling the California-Nevada border with two-thirds of the lake lying in California and the remainder located in Nevada. In addition, the Truckee and Carson Rivers are shared by both states. The Truckee and Carson Rivers run generally parallel to each other in an easternly direction commencing in California near Lake Tahoe and ending within closed basins in Nevada.[1] California and Nevada have contested the

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[1] *See* Defendants Renewed Motion for Summary Judgment, Ex-2, *Providing for the Settlement of Water Rights Claims of the Fallon Paiute Shoshone Indian Tribes and for other Purposes*, S.REP.NO. 101-555, at 8 (1990).

allocation of the Truckee and Carson Rivers since the 1800's, with the most heated controversy surrounding the Truckee System.[2] The debate has been partially fueled by the federal government's efforts to secure water for the Newlands Reclamation Project and its efforts to secure water to remedy the environmental impacts of that project.

The long history of the conflict began in the 1860's when a water company built a dam at the outlet of Lake Tahoe to supply water to San Francisco. The project was soon abandoned and the dam and surrounding property came into the hands of the Bureau of Reclamation and the Truckee River General Electric Company. The ensuing conflict among the federal government, the power company and property owners marked the beginning of the modern era controversy over water rights.

In 1902 Congress passed the Reclamation Act of 1902 which directed the Secretary of the Interior to withdraw from public entry arid lands in specified states, to reclaim those lands through irrigation projects, and then to restore the lands to entry pursuant to certain conditions in the Reclamation Act. Approximately 200,000 acres of land were withdrawn from public domain in western Nevada. These lands ultimately became the Newlands Reclamation Project

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[2] California and Nevada both presently make extensive use of the two rivers' water. "California uses Truckee River water at its headwaters, Lake Tahoe, and downstream to the interstate border, near Farad." (Defendants' Renewed Motion, Ex. 2, S-Rep. No. 101-555 at 9) Sierra Pacific Power Company has hydroelectric facilities in California and Nevada on the Truckee above Reno. (*Id.*) "Nevada makes use of Lake Tahoe in its portion of the Tahoe basin. The Truckee is the principal source of water for irrigation, municipal, industrial and domestic uses in the RenoSparks metropolitan area and provides water to the Newlands Reclamation Project, near Fallon, Nevada." (*Id.*) The Carson River provides water for irrigation and municipal use in California and is used for irrigation in Nevada. The Carson is the principal source of water for the Newlands Project. (*Id.*)

(hereinafter Project), which was designed to irrigate a substantial area of lands suitable for cultivation in the vicinity of Fallon, Nevada. The Project induced individuals to ranch and farm the withdrawn lands because of the stable water supply. A farming and ranching community grew in Fallon and the surrounding counties. Several irrigation canals were built from the Lahontan Reservoir to deliver water to farms and ranches in Churchill County.

The Project irrigates approximately 60,000 acres of land near Fallon.[3] Most of the land is used for irrigated pasture or alfalfa production.[4] The Project relies on a combination of Truckee and Carson River water. In order to make the most use of the two rivers' water supply, the government constructed the Derby Diversion Dam on the Lower Truckee and the Truckee Canal, which diverted water from the Truckee to the Carson Rivers.[5] A dam was built on the Carson River, creating Lahontan Reservoir.[6] Following several negotiations, the federal government obtained an easement at the site of the Lake Tahoe Dam and in 1915 obtained possession of the

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[3] The original Project contemplated the irrigation of about 200,000 acres, however, the Project has never exceeded about 65,000. (*See id.* at 10)

[4] Agricultural drainage-from the Project lands flows to wetlands areas known as the "Lahontan Valley wetlands" which include the Stillwater Wildlife Management Area, Stillwater National Wildlife Refuge, and Carson Lake and Pasture. (*Id.* at 10)

[5] A small portion of the Truckee diverted water is released into the Truckee canal within the Truckee basin to irrigate lands near Fernley, Nevada. The amount of water available for diversion at Derby dam varies seasonally and annually as a result of annual precipitation in the Sierra Nevada, operation of storage reservoirs in the Truckee basin, and upstream water supply and demands. (*Id.*)

[6] Lahontan Reservoir on the Carson River has a storage capacity of approximately 317,000 acre-feet.

dam.[7] In addition, the United States entered into contracts with several landowners in the Newlands area who had perfected water rights before the creation of the Project. The contracts provided that in exchange for their water rights the landowners would have a right to use Project water.[8] To establish the rights of the United States to use water from the Truckee and Carson Rivers for the benefit of the Newlands Project and the Pyramid Lake Paiute Indian Reservation, the United States began quiet title actions.[9]

The Project and other upstream appropriations of the Truckee and Carson Rivers spurred several lawsuits. In 1944, a federal-court decree, known as the Orr Ditch Decree, adjudicated the water rights of litigants in a 1913 suit filed by the United States which sought to confirm water rights for

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[7] A small dam on the Truckee River outlet to Lake Tahoe controls the top 6.1 feet of the lake, providing around 740,000 acre-feet storage. (Id.)

[8] In a report issued by the Senate in 1990 the Senate noted that the amount of water that is diverted at Derby Dam depends on the amount of water necessary to sustain the Newlands Project and that a portion of the Project's demand can be met by water from the Carson River system. (*Id.* at 10) The Report also noted that:

> The amount of water required for delivery to Project lands is a function of the number of irrigable water-righted acres actually being irrigated and the water duty established for each acre. . . . The amount of water supplied to meet water duty demands is a function of the efficiency of the irrigation water distribution system. Improving irrigation water distribution system efficiency would reduce the diversion requirements for the Truckee River, but would also reduce drainage flows reaching Lahontan Valley wetlands." (*Id.* at 11)

[9] In 1913, the United States initiated a quiet title action to Truckee River water rights in Nevada, *United States v. Orr Water Ditch Company* which resulted in the Orr Ditch Decree. In 1925, the United States brought an action for adjudication of Carson River water rights and a final decree was entered in 1980 in *United States v. Alpine Land and Reservoir Company*, 503 F. Supp. 877 (D.Nev. 1980), *aff'd* 697 F.2d 851 (9th Cir. 1983).

use in the Newlands Project.[10] Litigation over water rights continued over the area and as a result of litigation initiated in 1973, a federal court ruled that the Newlands Project was divesting too much water from the Truckee River and imposed a limit on diversions.[11] The Bureau of Reclamation imposed efficiency standards known as Operating Criteria and Procedures (OCAP) for the Project. The purpose of OCAP is to maximize the use of Carson River water for the Newlands Project and to minimize the diversion of Truckee River water via the Truckee Canal. This resulted in more litigation.

Truckee-Carson-Pyramid Lake Water Settlement Act

On November 16, 1990 Congress enacted the Truckee-Carson-Pyramid Lake Water Settlement Act, Title II of Pub. L. 101-618 [hereinafter Settlement Act]. The purposes of the Settlement Act are generally to resolve water disputes regarding the Truckee and Carson Rivers and Lake Tahoe between California and Nevada, to encourage a more efficient use of the water, to protect the wetlands habitats within the

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[10] The Orr Ditch Decree affirmed individual water rights and provided for the operation of Lake Tahoe and Boca Reservoir to serve those rights. Parties to the Decree include the federal government, Sierra Pacific, the Washoe County Water Conservation District, and individual water rights holders in Nevada. In addition, based on the date of establishment of the Pyramid Lake Indian Reservation, the court recognized an 1859 priority date for water rights for irrigation on reservation lands. These rights are known as Claims 1 and 2 and are the two most senior water rights on the Truckee River. (S.Rep.No.101-555, at 11)

[11] *See Nevada v. United States*, 463 U.S. 110 (1983). In this action, the United States, joined by the Pyramid Lake Paiute Tribe, brought suit against all persons claiming water rights to the Truckee River and its tributaries in Nevada. The suit sought additional water from the Truckee for the benefit of preserving Pyramid Lake and its Fisheries. The government and the Tribe argued that the Orr Ditch Decree only quantified the Pyramid Lake Reservation's right to water for agricultural purposes. The Supreme Court rejected that claim.

Newlands Area, to remedy environmental impacts upon the wildlife in the wetlands, and to set up a development fund for the Paiute Tribe.

The Settlement Act addresses several issues, including "interstate water apportionment, management of Federal water storage and diversion facilities, protection and restoration of wetlands and endangered and threatened fish species, and the settlement of Indian tribal claims to water and other interests." (Federal Defendants' Renewed Motion for Summary Judgment on Programmatic EIS Claims, Ex. 2, S.REP. No. 101-555, at 8 (1990))

The Settlement Act includes the following provisions: (1) section 204 addresses the interstate allocation of waters of Lake Tahoe and the Truckee and Carson rivers; [12] (2) section 205 discusses measures to provide a drought supply of water to the cities of Reno and Sparks and to obtain additional water for Pyramid Lake through an operating agreement for the Truckee River reservoirs (TROA);[13] (3) section 206 gives

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[12] Section 204(a) concerns the Carson River and confirms the allocation of waters by the Alpine Decree. It provides that if a portion of the effluent imported from Lake Tahoe basin into the watershed of the Carson River in California changes so that the supply of water in the Nevada portion of the Truckee increases, the allocation to California of water of the West Fork of the Carson Fiver and its tributaries shall be augmented with some limitations. Section (b) allocates Lake Tahoe water between California and Nevada and section (c) address the diversion of Truckee River water to California with some limitations.

[13] Section 205 directs the Secretary to negotiate an operating agreement between California and Nevada to provide for the operation of the Truckee River Reservoirs and to ensure that the reservoirs are operated to:

(A) satisfy dam and flood control requirements.

(B) "provide for the enhancement of spawning flows available in the Lower Truckee River for the Pyramid Lake fishery . . . consistent with the Endangered Species Act."

(C) carry out the provisions of the Preliminary Settlement Agreement as modified by the Ratification Agreement.

the Secretary of the Interior a directive to begin restoring and protecting the Great Basin wetlands ecosystems in the Lahontan Valley, including the Stillwater Wildlife Refuge and the acquisition of sufficient water rights to maintain 25,000 acres of primarily wetland habitat;[14] (4) section 207 discusses additional measures to aid the endangered species of Pyramid Lake;[15] and (5) section 208 sets aside $25,000,000 to establish the Pyramid Lake Fisheries and Development Funds.[16] In section 209 the Settlement Act

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(D) ensure that water is released and stored from the Truckee in accordance with the Orr Ditch Decree and Truckee River General Electric Decree.

(E) minimize the costs associated with operating and maintaining the Stampede Reservoir.

Section 205(3) lists some of the provisions the Operating Agreement should include. The agreement must be approved by the Secretary and the state of Nevada and California. Section 205(b) authorizes the use of storage facilities at Washoe Project, Truckee and Lake Tahoe Dam and Reservoir.

[14] Under section 206(a), the Secretary is authorized to purchase water rights for the restoration and maintenance of the wetlands from willing sellers. Section 206(c) instructs the Secretary to conduct a study of the lands owned by the U.S. within the Naval Station to reduced direct surface deliveries of water. Section 206(f) establishes a Lahontan Valley and Pyramid Lake Fish and Wildlife Fund.

[15] In particular, section 207(a) instructs the Secretary to revise, update and implement plans for the conservation and recovery of the cui-ui and Lahontan cutthroat trout in accordance with the Endangered Species Act. The plan is to take into account and be implemented in a manner consistent with the water allocations between California and Nevada and the Operating Agreement, "if and when those allocations and agreements enter into effect." Section 207(b) calls for a study to determine the feasibility of rehabilitating the lower Truckee River for the benefit of the Pyramid Lake fishery. Section 207 (c) authorizes the Secretary to acquire water rights for the conservation and recovery of the Pyramid Lake Fishery from willing sellers.

[16] This section creates the Pyramid Lake Paiute Fisheries Fund and the Pyramid Lake Paiute Economic Development Fund. The section proceeds

provides incentives to assist in the resolution of disputes concerning the Newlands Project.[17] Section 210 addresses miscellaneous provisions, such as encouraging settlement of outstanding litigation and proceedings.

National Environmental Policy Act of 1969

Section 102 (2) (C) of the National Environmental Policy Act of 1969[18] (NEPA) requires that all federal agencies include a detailed statement of environmental consequences known as an environmental impact statement "in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality

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to provide some guidance on how the money is to be disbursed and for what purposes.

[17] Section 209(a) expands the purposes of the Newlands Project to benefit: (a) fish and wildlife; (b) water supply for Lyon and Churchill counties; (c) recreation; (d) water quality; and (e) any other beneficial purpose. Section 209(b) prohibits the Secretary from implementing any provision of the Settlement Act in a manner that would increase diversions of Truckee River water to the Newlands Project in excess of those allowed by operating-agreements or court decrees. Section (c) authorizes the Secretary to conduct a project efficiency study. Section (d) authorizes the Secretary, in consultation with the State of Nevada and the Newland's Project operator, to enter into agreements to allow water right holders to use Newlands Project facilities. Studies are authorized under sections (e) and (f). Section (h) encourages settlement of claims. Under section (j) the government places limitations on the Secretary's implementation of the provisions of the Settlement Act.

[18] The purpose of NEPA is set forth in its opening section:

> To declare a national policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

42 U.S.C.§ 4321 (1994).

of the human environment." 42 U.S.C. § 4332(2)(C) (1994).[19] The environmental impact statement (EIS) "must include, among other things, 'a detailed statement' describing the reasonably foreseeable environmental impact both of the proposed federal action and of any feasible alternative(s) to the proposed federal action, including nonaction." *City of Grapevine, Tex. v. Department of Transp. (DOT)*, 17 F.3d 1502, 1503 (D.C. Cir. 1994) (quoting 42 U.S.C. § 4332(2)(C)). The regulations promulgated by the Council on Environmental Quality (CEQ), the agency responsible for ensuring compliance with NEPA, state that federal agencies are responsible for "[d]esignating the major decision points for the agency's principal programs likely to have a significant effect on the human environment and assuring that the NEPA process corresponds with them." 40 C.F.R. § 1505.1(b). An agency does not need to conduct a comprehensive EIS if an environmental assessment reveals that the proposed action will have little effect on the environment. 40 C.F.R. § 1501.4.

The purpose of an EIS is to "provide decisionmakers with sufficiently detailed information to aid in determining whether to proceed with an action in light of its environmental consequences and to provide the public with information and an opportunity to participate in the information

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[19] The detailed statement should discuss:

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be implemented.

42 U.S.C. § 4332(C).

gathering process." *Northwest Resource Info. Ctr, Inc. v. National Marine Fisheries Serv.*, 56 F.3d 1060, 1064 (9th Cir. 1995). An EIS must contain a "'reasonably thorough discussion of the significant aspects of probable environmental consequences'" to ensure that the agency took a "hard look" at the environmental impacts of its proposed action. *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F. 3d 1372, 1376 (9th Cir. 1998) (quoting *Oregon Natural Resources Council v. Lowe*, 109 F.3d 521, 526 (9th Cir. 1997)).

The Dispute over the implementation of the Settlement Act

The City of Fallon is located in Churchill County within the boundaries of the Newlands Project. The City operates its own municipal water system and provides domestic, commercial and industrial water services to its residents. The City of Fallon has underground water rights which are served by the Newlands Project. Fallon's municipal water system is served and supplied by wells whose aquifers are recharged by surface irrigation. (Plaintiffs' Opposition and Cross-Motion, p.6, 11. 12-14) In addition, Fallon owns surface water rights adjudicated under the Orr Ditch Decree and the Alpine Decree which are also served by the Newlands Project. (*Id.*) The City is concerned about its water supply because the Newlands Project water rights are subject to reallocation under the authorizations of the Settlement Act. Churchill County residents rely on 5500 individual wells that tap the shallow or intermediate aquifers. (*Id.* p.6, 11. 18-20) The County recently enacted an ordinance whereby developers will tender water rights in return for County water service. (*Id.* p.6, 11. 20-22)

The plaintiffs are particularly concerned about the provisions in the Settlement Act that could result in the acquisition of water rights, or in the alteration of water usage in the Project away from agriculture to other purposes. The

plaintiffs allege that the purchase of water rights will adversely affect their water supplies which depend upon recharge of the groundwater in the Project area.

The Department of the Interior, through its Secretary, is charged with implementing the Settlement Act. On November 4, 1996 the U.S. Fish & Wildlife Service issued its Record of Decision (ROD) [20] on water rights acquisitions for the Lahontan Valley wetlands as authorized by Section 206(a) of the Settlement Act. Prior to issuing the ROD, the Service prepared and published a final environmental impact statement (FEIS) on its proposal to acquire water and water rights for the benefit of the Lahontan Valley wetlands.[21] The Department of the Interior states that no other section of the Settlement Act is ready to be implemented.[22]

Lawsuit

The plaintiffs Churchill County and the City of Fallon allege that the Secretary of the Interior and other officials of the Department of the Interior are in violation of the National Environmental Policy Act of 1969. First, the plaintiffs assert that NEPA requires the federal defendants to analyze the impact of implementing sections 205, 206, 207, 209, and 210 (b) (16) of the Settlement Act's provisions in a single EIS known as a programmatic EIS.[23] The plaintiffs argue that these provisions of the Settlement Act have synergistic or

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[20] Record of Decision of Nov. 4, 1996, Administrative Record (AR) Tab 3217.

[21] Final Environmental Impact Statement, Water Rights Acquisition for Lahontan Valley Wetlands September 1996, AR Tab 1189.

[22] *See* Federal Defendants' Renewed Motion for Summary Judgment, p.6 and Att. A, William Bettenberg Declaration.

[23] Plaintiffs' Counsel at oral argument on March 27, 2000 clarified to the Court that the plaintiffs claim that only sections 205, 206, 207, 209, and 210(b) (16) needed to be addressed-in a programmatic environmental impact study.

cumulative effects or are connected actions and therefore, need to be considered in a single EIS.[24] Second, the plaintiffs argue that the 1996 Final EIS prepared for section 206, acquisition of water rights for the Lahontan Valley wetlands, is legally deficient because the federal defendants failed to "adequately analyze cumulative and synergistic impacts," failed to study the impacts to the groundwater and failed to define and study a reasonable range of alternatives. (Plaintiffs' Opposition and Cross-Motion, p. 6, 11.4-7) Plaintiffs also seek a permanent injunction to prevent defendants from implementing interrelated components of the Settlement Act and related actions affecting water usage until the defendants follow NEPA.

In their motion for summary judgement and in their reply the defendants have raised several arguments. First, defendants argue that apart from the action to acquire water rights for the Lahontan Valley wetlands, the plaintiffs' claims are not ripe for judicial review. The federal defendants state that they have not taken any reviewable final agency action with respect to any other provisions of Pub. L. 101-616. (Defendants' Renewed Motion for Summary Judgement, p.6)

Second, defendants argue that a programmatic EIS assessing the combined effects of implementing the actions under the Settlement Act is not required because the different sections of the Settlement Act are not connected or cumulative actions. The defendants state that sections 205, 206, 207, 209, and 210 (b) (16) each have independent utility and are not inextricably intertwined. They claim that the intent and purpose of the statute was to resolve a number of

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[24]At oral argument plaintiffs counsel argued that the test for determining whether a programmatic EIS is required is whether the sections of the Settlement Act have cumulative or synergistic effects. In the Plaintiffs' Opposition and Cross-Motion, plaintiffs also state that actions that are "connected actions" must be considered in one EIS. *See* Plaintiffs' Opposition and Cross-Motion, p.16-17.

outstanding disputes and to provide a framework to resolve other problems in the area. They argue that the provisions of the Settlement Act require the development of specific administrative plans and that the provisions are independent of one another.

In addition, the defendants argue that the 1996 Final EIS is legally adequate because the wetlands environmental impact statement ("WEIS") presents a reasonable and thorough analysis of the potential adverse environmental consequences of implementing section 206. The defendants contend that the WEIS considered all reasonably feasible alternatives and presented all the information necessary to make an informed decision.

I Summary Judgment

Summary judgment allows courts to avoid unnecessary trials where no material factual dispute exists. *Northwest Motorcycle Ass'n v. U.S. Department of Agriculture*, 18 F.3d 1468, 1471 (9th Cir. 1994). In deciding whether to grant summary judgment, the court must view the evidence and any inferences arising from the evidence in the light most favorable to the nonmoving party, *Bagdadi v. Nazar*, 84 F.3d 1194, 1997 (9th Cir. 1996), and should grant summary judgment where no genuine issues of material fact remain in dispute and the moving party is entitled to judgment as a matter of law. Fed. R. Civ. P. 56(c). Judgment as a matter of law is appropriate where there is no legally sufficient evidentiary basis for a reasonable jury to find for the nonmoving party. Fed. R. Civ. P. 50(a). Where reasonable minds could differ on the material facts at issue, however, summary judgment should not be granted. *Warren v. City of Carlsbad*, 58 F.3d 439, 441 (9th Cir. 1995).

The moving party bears the burden of informing the court of the basis for its motion, together with evidence which demonstrates the absence of any genuine issue of material

fact. *Celotex Corp. v. Catertt*, 477 U.S. 317, 323 (1986). Once the moving party has met its burden, the party opposing the motion may not rest upon mere allegations or denials in the pleadings, but must set forth specific facts showing that there exists a genuine issue for trial. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986). Although, the parties may submit evidence in an inadmissable form-namely, depositions, admissions, interrogatory answers, and affidavits only evidence which might be admissible at trial may be considered by the trial court in ruling on a motion for summary judgment. Fed. R. Civ. P. 56(c); *Beyene v. Coleman Security Services, Inc.*, 854 F.2d 1179, 1181 (9th Cir. 1988).

Material facts are facts that might affect the outcome of the suit; materiality is determined by reference to the substantive law at issue in the case. *Anderson*, 477 U.S. at 248. Disputes over irrelevant or unnecessary facts should not be considered. *Id.* If, given the evidence submitted, a reasonable jury could hold for the nonmoving party, the dispute over material fact is "genuine." *Id.* Where there is a complete failure of proof on an essential element of the case for the nonmoving party, all other facts become immaterial, and the moving party is entitled to judgment as a matter of law. *Celotex*, 477 U.S. at 323.

II Ripeness

Courts are generally precluded, under the doctrine of ripeness, from prematurely adjudicating administrative matters until the proper agency has formalized its decision making process. *Ecology Center, Inc. v. United States Forest Serv.*, 192 F.3d 922, 924 (9th Cir. 1999). NEPA does not contain a provision allowing a right of action. *Lujan v. National Wildlife Fed.*, 497 U.S. 871 (1990). A party alleging violations of NEPA can bring an action under the Administrative Procedure Act ("APA") challenging an "agency action." *See id; ONRC Action v. Bureau of Land Mgt.*, 150 F.3d 1132, 1135 (9th Cir. 1998). Under the APA, a person

suffering a legal wrong because of agency action, or adversely affected by agency action within the meaning of the statute is entitled to judicial review.[25] 5 U.S.C. § 702. The agency action must be a final agency action reviewable by statute or final agency action for which there is no other adequate court remedy. 5 U.S.C. § 704. An administrative action is considered a final agency action when two conditions are met: (1) the action marks the consummation of the agency's decision making process; and (2) the action should be one by which rights or obligations have been determined or from which legal consequences flow. *Bennett v. Spear*, 520 U.S. 154 (1997); *Ecology Center*, 192 F.3d at 922.

As a threshold matter, the federal defendants argue that the plaintiffs have not challenged a "final agency action" as required by the APA. In their view, the plaintiffs are claiming that their decision not to prepare a programmatic EIS for all the sections in the Settlement Act is arbitrary and capricious. The federal defendants argue, however, that the "final agency action" challenged only concerns buying of water rig's under section 206 and that no plan, proposal, or action with regard to the remaining sections has taken place. Plaintiffs argue that the Service's choice not to prepare a programmatic EIS is a final agency action which the court may review. Courts have found that the decision by an agency not to conduct an EIS is a final agency action that is reviewable. *See, e.g., Kleppe v. Sierra Club*, 427 U.S. 390, 408-409 (1976). However, often the courts were reviewing an agency's decision not to prepare *any* environmental study. Under the facts of this case, however, the defendants have prepared an

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[25] To establish a right of relief under section 702 of the APA, a claimant must satisfy two requirements: (1) that it has been affected by "agency action" as defined in section 551(13); and (2) that it has been "adversely affected or aggrieved" by that action "within the meaning of the relevant statute." 5 U.S.C. § 702.

EIS for their proposed action and the real issue is whether the NEPA requires the defendants to perform a programmatic EIS. The NEPA requires an EIS only when actions are connected, cumulative, or similar actions. 40 C.F.R. § 1508.25.

The Court finds that the defendants' argument that no agency action exists is flawed. First, the defendants argument relies on a mischaracterization. The defendants argue that because the other sections of the Settlement Act are still in the preliminary stages of development, there is no final agency action that can be reviewed. However, the plaintiffs claim is that the Wetlands WEIS and ROD are inadequate because the WEIS should have addressed the impact of sections 205, 206, 207, 209, and 210(b) (16) of the Settlement Act. The plaintiffs contend that sections 205, 206, 207, 209, and 210(b)(16) of the Settlement Act are intimately related and therefore should have been considered together in one programmatic EIS. Therefore, plaintiffs are challenging a final agency action—the preparation of an EIS that simply evaluates the impact of implementing section 206. In *Kleppe v. Sierra Club*, 427 U. S. at 408, the respondents asked the Supreme Court to address whether a comprehensive regional impact statement was necessary even though a regional plan or proposal did not exist. The Court stated that one way to view this argument was as an "attack upon the decision of the petitioners not to prepare one comprehensive impact statement on all proposed projects in the region." *Id.* at 408. The Supreme Court found that contention properly before the Court because the petitioners had made it clear they did not intend to prepare such a statement. *Id.*

Second, this court finds the Ninth Circuit's analysis in *Northwest Resource Ctr, Inc. v. National Marine Fisheries Serv.*, 56 F.3d 1060 (9th Cir. 1995), applicable to this case. In *Northwest Resource*, the plaintiffs filed suit against the Army Corps of Engineers and National Marine Fisheries Services

alleging NEPA violations. The plaintiffs alleged that the defendants violated the NEPA by failing to consider the impacts of the transportation program for juvenile salmon in the EIS analyzing salmon-river flow improvement measures. *Id.* at 1065. The defendants argued that the plaintiffs had failed to challenge any agency action because they were challenging the Corps of Engineers' decision not to prepare an EIS for the transportation program for which no action had been taken. *Id.* The Ninth Circuit stated that the "defendants argument begs the question" and that the court must first determine whether the transportation program is a connected action to the flow improvements programs. *Id.* at 1067. The Ninth Circuit held that "if the two [actions] were connected actions then NEPA required them to be addressed in the same EIS." *Id.* This court finds that in considering whether there is agency action, the court must first determine whether the separate sections of the Settlement Act constitute cumulative or connected actions that should have been addressed in the same EIS.

III Standard of Review

Under the Administrative Procedure Act an agency's decision may be set aside only if it was "'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Morongo Sand of Mission Indians v. Federal Aviation on Admin.*, 161 F.3d 569, 573 (9th Cir. 1996) (quoting 5 U.S.C. § 706(2)(A)). Agency decisions regarding NEPA are reviewed under the APA's arbitrary and capricious standard. *See id.* In evaluating whether an agency's decision complies with NEPA's requirements, a court must determine whether the agency's decision contains "a reasonably thorough discussion of the significant aspects of the probable environmental consequences." *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1376 (9th Cir. 1998).

IV Programmatic Environmental Impact Statement

A. *Parties Arguments*

Plaintiffs argue that sections 205, 206, 207, 209, and 210(b)(16) are interrelated because they have a common thread tying them together—the protection of the Pyramid Lake Fishery. They also claim that the historical language of the Settlement Act suggests the Act was viewed as "an integrated and comprehensive agreement" and that certain employees, and the Department of the Interior itself, considered sections 205, 206, 207, 209, and 210(b)(16) interrelated. The plaintiffs state that the "primary driver" of the Settlement Act and a common thread among all the sections in the Settlement Act is the protection of the Pyramid Lake Fishery and that the different components of the Settlement Act intend to produce cumulative effects to fish and wildlife. (Plaintiffs' Opposition and Cross-Motion, p. 17)

Defendants contend that the provisions of the Settlement Act are not connected or cumulative actions. First, the defendants argue that the Settlement Act itself does not create a single federal program because each of the provisions in the Act has a different purpose. (Defendants' Reply to Plaintiffs' Opposition and Cross-Motion, p.2) The defendants state that the Settlement Act was passed by Congress in an effort to address several different problems and concerns and that it does not have the restoration of the Pyramid Lake Fishery as its central theme. Second, defendants note that each of the provisions is independent of the other and that while they may benefit each other they are not interdependent and can be implemented without the other. (Defendants' Reply to Plaintiffs' Opposition and Cross-Motion, p. 4-7)

B. *Requirement for a Programmatic EIS*

The Council on Environmental Quality (CEQ), which issues regulations regarding NEPA, has stated that "(proposals or parts of proposals which are related to each other

closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement." 40 C.F.R. § 1502.4(a). In determining the scope of an EIS an agency should consider whether the actions involved are connected, cumulative, or similar actions which should be included in the same EIS as set out in section 1508.25.[26] *Id.*; *see also National Wildlife Fed'n* v. *Federal Energy Regulatory Comm'n*, 912 F.2d 1471, 1476 (D.C. Cir. 1990). In this case, we are only concerned with connected and cumulative actions. We note that an analysis of cumulative actions and cumulative impacts are different. Section 1508.25 requires cumulative actions to be considered in one EIS. However, even if actions are not found to be cumulative (or connected),

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[26] Section 1508.25 defining the scope of an EIS states: Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (§§ 1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:

(a) Actions (other than unconnected single actions) which may be:

(1) connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

(3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. . . .

an agency must still analyze in its EIS the direct, indirect, and cumulative impacts of its proposed action. 40 C.F.R. § 1508.25(c). Section 1502.1 states that the purpose of an EIS is to provide "full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1.

Cumulative actions are actions which "when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement." See 40 C.F.R. § 1508.25(a) (2); *see also City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990) (stating that where "several foreseeable similar projects in a geographical region have a cumulative impact they should be considered in a single EIS"). The regulations define cumulative impact as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such ocher actions." 40 C.F.R. § 1508.7. Connected actions are defined as actions that:

> (i) Automatically trigger other actions which may require environmental impact statements.
>
> (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.
>
> (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

40 C.F.R. 1508.25(a)(1).

Analyzing cumulative actions in one EIS is at times necessary in order to ensure that an agency has considered the full environmental impact of its actions during its decision-making. *Kleppe v. Sierra Club*, 427 U.S. 390, 408 (1976).

One of the rationales for requiring an agency to consider connected actions together in the same EIS is to ensure that an agency does not divide the project into several smaller actions, each having insignificant environmental impact when considered in isolation but when taken as a whole would have a substantial impact. *Northwest Resource Info. Ctr. v. National Marine Fisheries Serv.*, 56 F. 3d 1060, 1068 (9th Cir. 1995).

B. *Analysis*

Several principles can be gleaned from cases which have addressed the issue of when NEPA requires actions to be considered in one EIS. In *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985), the Ninth Circuit held that the construction of a road to facilitate logging and the sale of timber that would result from that logging were connected actions. The court found that the two actions were "inextricably intertwined" because the timber sales "cannot proceed without the road, and the road would not be built but for the contemplated timber sales." *Id.* at 757. Similarly, in *Save the Yaak Comm. v. J.R. Block*, 840 F.2d 714 (9th Cir. 1988), the Ninth Circuit held that the Forest Service's proposed road reconstruction and timber sales were connected actions that had to be analyzed in one EIS. The court found that there was a "clear nexus between the timber contracts and the improvement of the road." *Id.* at 720. The court was persuaded by the fact that a substantial part of the testimony and evidence established that the purpose of the road was to make the log hauling more efficient and there was no indication that the road was reconstructed for any other purpose. *Id.*

In *Trout Unlimited v. Morton*, 509 F.2d 1276 (9th Cir. 1974), the Ninth Circuit held that the first and second phase of the Teton Dam and Reservoir Project need not be addressed in the same EIS because each phase was substantially independent. *Id.* at 1284. The court stated that an EIS must cover subsequent phases when the "dependency is

such that it would be irrational, or at least unwise, to undertake the first phase if subsequent phases were not also undertaken." *Id.* at 1285. This principle was followed by the Court in *Daly v. Volpe*, 514 F.2d 1106 (9th Cir. 1975). In *Volpe*, the Court held that segments of a highway may be evaluated separately if the segment has "independent utility." *Id.* at 758. The Ninth Circuit has interpreted "independent utility" to mean utility such that the agency might reasonably consider constructing only the segment in question. *Thomas*, 753 F.2d at 760.

The Ninth Circuit held in *Sylvester v. U. S. Army Corps of Eng'rs*, 884 F.2d 394, 400 (9th Cir. 1989), that the effects of a proposed golf course and resort did not need to be considered in the same EIS. The court analogized environmental impacts to "scattered bits of a broken chain, some segments of which contain numerous links, while other have only one or two. Each segment stands alone, but each link within each segment does not." *Id.* at 399. Following this analogy the court noted that the golf course and the remainder of the resort complex, separate segments of the chain, " could exist without the other, although each would benefit from the other's presence." *Id.* at 400; *see also Western Radio Serv. Co. v. Glickman*, 123 F.3d 1189, 1194 (9th Cir. 1997) (holding that the modification of an existing project to construct a tower and an access road did not make the projects connected actions because the two actions did not satisfy the definition of connected actions). In *Northwest Resource Info. Ctr., Inc. v. National Marine Fisheries Serv.*, 56 F.3d 1060 (9th Cir. 1995), the Court held that a river flow improvement project and a juvenile salmon transportation program were not connected actions. The court found that the two programs were not "links in the same bit of chain", that each program could continue without the other and that the two actions had independent utility. *Id.* at 1068. The court held that the two actions were interconnected to the extent that each would benefit from the existence of the other. *Id.* at

1069. The court did acknowledge that the two actions were not wholly unrelated but rejected the district court's argument that the two actions were so interdependent as parts of a larger action of improving the survival of the salmon that they needed to be addressed in the same EIS. The court stated that while an agency cannot "segregate its actions in order to support a contention of minimal environmental impact" the agency could not be forced to "aggregate diverse actions to the point where problems must be tackled from every angle at once. To do so risks further paralysis of agency decision making." *Id.*

1. *Cumulative Actions*

We do not find that sections 205, 206, 207, 209, and 210(b)(16) are related actions that have cumulative or synergistic impacts. To determine whether actions are cumulative or will have synergistic environmental impacts upon a region, a court should weigh a number of relevant factors, including "the extent of the interrelationship among proposed actions and practical considerations of feasibility." *Kleppe v. Sierra Club*, 427 U.S. 390, 412 (1976); *see also, Airport Neighbors Alliance, Inc. v. United States*, 90 F.3d 426, 431 (10th Cir. 1996) (applying the "inextricable nexus" and "unwise or irrational" standards to determine whether particular actions of a program were cumulative). The Supreme Court stated that "[r]esolving these issues requires a high level of technical expertise and is properly left to the informed discretion of the responsible federal agencies." *Kleppe*, 427 U.S. at 412. Absent a showing of arbitrary action, the court must assume that the agency has exercised its discretion appropriately.

First, the Court finds that section 210(b)(16) is not a substantive requirement placed upon the agency but rather a procedural safeguard to ensure that the agency considers the effect upon local interests of implementing the Settlement Act. The agency has in fact done that in its final EIS. Second,

the Court finds that sections 205, 206, 207, and 209 have little or no interrelationship. Section 205 concerns the negotiation of an operating agreement for the Truckee River reservoirs. This section directs the Secretary to negotiate an agreement between the State of Nevada and the State of California. Section 205 is not related to or dependent upon section 206, 207 or 209. The Secretary is free to begin negotiations at any time and is not constrained by either section 206, 207 or 209. Section 206 addresses the purchase and acquisition of water rights to maintain 25,000 acres of wetland habitat. The Settlement Act does not limit the time in which the Secretary can begin to purchase the water rights and section 206 can proceed without having sections 205, 207, or 209 simultaneously implemented.

Section 207 concerns the conservation and recovery of the cui-ui and Lahontan cutthroat trout. Although this section, like section 206, is also designed to benefit the environment, it is not interdependent on section 205, 206, and 209. It is not unwise or irrational to postpone implementing section 207. Section 209 directs the Secretary to conduct a variety of studies regarding the Newlands Reclamation Project and directs the Secretary to operate and maintain the project in a more efficient manner in order to serve several interests including fish and wildlife, municipal water supply, water quality, and recreation. While section 209 may result in benefits to fish and wildlife, section 209 is not interdependent or interrelated to sections 205, 206, and 207. Each of the sections discussed above has a different goal and different methods for achieving these goals. The sections are not "inextricably intertwined."

In addition, no action or proposals have been made regarding sections 205, 207, and 209. Counsel for the defendants stated in oral argument that it will be another two years at least before the Truckee River Operating Agreement called for in section 205 reaches a proposal stage. No action

has been taken under section 209(j)(3) for recoupment since that is being handled through litigation.[27] Also, no proposals exist for recovery of the Pyramid Lake Fishery in section 207. Therefore, it is not feasible to consider these sections in a programmatic EIS. The Court also notes that the primary purpose of the Settlement Act is not the protection of the Pyramid Lake Fishery but rather the resolution of water disputes between the State of California and Nevada. The Senate report on the Settlement Act devotes a substantial section of the report to describing the water dispute between the two states. (Defendants Renewed Motion for Summary Judgment, Ex. 2, S.Rep. No. 101-555, p.8-19)

Furthermore, the plaintiffs rely on *Kleppe v. Sierra Club*, 427 U.S. 390 (1976), to support their argument that sections 205, 206, 207, 209, and 210(b) (16) are cumulative actions that need to be considered in one EIS. In *Kleppe* the Supreme Court stated that when several proposals that "will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together." *Id.* at 410. However, the Supreme Court noted that an agency is not required to consider in a single environmental statement actions that are not yet proposed projects. The Supreme Court stated that the statute "speaks solely in terms of Proposed actions; it does not require an agency to consider the possible environmental impacts of less imminent actions when preparing the impact statement on proposed actions." *Id.* at 410 fn.20; *see also, National Wildlife Fed'n v. Federal Energy Regulatory Comm'n*, 912 F.2d 1471, 1478-79 (D.C. Cir. 1990) (stating that *Kleppe* "clearly establishes that an EIS need not delve into the possible effects of a hypothetical project, but need only focus on the impact of the particular proposal at issue and other pending or recently approved

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[27] *See United States v. Board of Directors, Truckee-Carson Irric- Dist., et al.*, CV-N-95-757-HDM (D.Nev.).

proposals that might be connected to or act cumulatively with the proposal at issue").

The Supreme Court in *Kleppe*, 427 U.S. at 410 fn.20, went on to state that "[s]hould contemplated actions later reach the stage of actual proposals, impact statements on them will take into account the effect of their approval upon the existing environment; and the condition of that environment presumably will reflect earlier proposed actions and their effects." *Id.* Under this rule, the Department of the Interior was not required to consider the effect of sections 205, 207, or 209 because there are no proposed actions currently before the agency on these sections. Furthermore, once these sections have reached the stage of proposed actions, impact statements on these sections will take into account the effects of section 206.

2. *Connected Actions*

We also do not find that sections 205, 206, 207, and 209 are connected actions that need to be addressed in a single EIS. First, these sections do not fall under the definition of connected actions set out in section 1508.25. *See* 40 C.F.R. § 1508.25. Sections 205, 206, 207, and 209 do not automatically trigger each other. Each section may be implemented individually and can proceed without another section being implemented simultaneously. Also, sections 205, 206, 207, and 209 are not interdependent parts of a larger action that depend on the larger action for justification. Each section addresses an issue that Congress wanted to see resolved. The Court does not find that Congress intended for each provision to exist only if the other provisions are carried out. Congress's goal in passing Title II of the Settlement Act was to provide a framework to resolve some of the water disputes between the two states, to benefit the environment in the Newlands area and to encourage settlement of water disputes between the state of California and Nevada.

Second, the Court finds that the provisions of the Settlement Act are not connected actions under Ninth Circuit precedent. The Settlement Act's provisions are not "inextricably intertwined" as the court described in *Thomas v. Peterson*, 753 F.3d 754, 757 (9th Cir. 1985). The implementation of section 206 is not dependent on other sections. Water purchased for the benefit of the Tribe and the Pyramid Lake fish can proceed without section 206. Likewise, it is not irrational to proceed with implementing section 206 without implementing other sections. Sections 205, 206, 207, and 209 have independent utility and separate purposes and goals. Although, the provisions may generally benefit the environment, the Settlement Act is not itself one federal program. Sections 205, 206, 207, and 209 are only interconnected to the extent that each would benefit from the existence of the other. *See Northwest Resource*, 56 F.3d at 1060. However, they are separate segments of the chain and do not need to be considered in one EIS. *See Sylvester*, 884 F.2d at 400.

IV Inadequacy of WEIS for Section 206

The role of the courts in reviewing agency compliance with the NEPA is a limited one because "NEPA does not mandate particular substantive results, but instead imposes only procedural requirements." *Laguna Greenbelt, Inc. v. United States Dep't of Treasury*, 42 F.3d 517, 523 (9th Cir. 1994); *See Daly v. Volpe*, 514 F.2d 1106, 1108 (9th Cir. 1975). A court's task is to ensure that the agency has considered and disclosed the environmental impact of its actions. *Association of Pub. Agency Customers, Inc. v. Bonneville Power Admin.*, 126 F.3d 1158, 1183 (9th Cir. 1997). A court is not to "substitute [its] judgment for that of the agency concerning the wisdom or prudence of a proposed action." *Oregon Envtl. Council v. Kunzman*, 817 F.2d 484, 492 (9th Cir. 1987).

In reviewing the adequacy of a final environmental impact statement we merely examine "'whether there is a reasonable, good faith, objective presentation of the topics [that NEPA]

requires an [EIS to] cover.'" *Colorado Envtl. Coalition v. Dombeck*, 185 F.3d 1162, 1171 (10th Cir. 1999) (citing *Holy Cross Wilderness Fund v. Madigan*, 960 F.2d 1515, 1522 (10th Cir. 1992)). Our objective is not to "fly speck" the EIS, but rather to make a pragmatic judgment on whether the EIS's content, form, and preparation "'foster both informed decisionmaking and informed public participation.'" *Id.* (quoting *Oregon Ervtl. Council v. Kunzman*, 817 F.2d 484, 492 (9th Cir. 1987)).

For NEPA actions challenging the adequacy of an environmental impact statement, the Ninth Circuit has fashioned a "rule of reason" to determine whether the agency has engaged in a "reasonably thorough discussion of the significant aspects of probable environmental consequences." *American Rivers v. Federal Energy Regulatory Comm.*, 201 F.3d 1186 (9th Cir . 2000); *Oregon Natural Resources Council v. Lowe*, 109 F.3d 521, 526 (9th Cir. 1997). Once the court is satisfied that the agency has taken a "hard look" at a decision's environmental consequences, the courts review is at an end. *American Rivers*, 201 F.3d at 1194; *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992). "The rule of reason analysis and the review of abuse of discretion are essentially the same." *Neighbors of Cuddy Mountain v. United States Forest Serv.*, 137 F.3d 1372, 1376 (9th Cir. 1998); *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 810 (9th Cir. 1999).

In determining whether an agency acted in an arbitrary and capricious manner a court must ensure that the agency decision was based on a "consideration of the relevant factors" and examine "'whether there has been a clear error of judgment.'" *Colorado Envtl. Coalition v. Dombeck*, 185 F.3d 1162, 1167 (10th Cir. 1999) (quoting *Citizens to Preserve*

Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971)). An agency's decision is arbitrary and capricious if

> "the agency . . . relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of a problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."

Id. (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)).

NEPA requires that an EIS serve two functions: (1) to provide decision makers with a detailed statement of the environmental impact of a project so that they can make an informed decision on the project, and (2) to provide the public with information on a project's environmental impact and encourage public participation. *Trout Unlimited v. Morton*, 509 F.2d 1276, 1283 (9th Cir. 1974). The court is to make a "pragmatic judgement whether the [EIS's] form, content and preparation foster both informed decision-making and informed public participation." *Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992).

Plaintiff's Arguments for why the WEIS is Inadequate:

The plaintiffs argue that the final EIS completed for section 206 is inadequate for several reasons. First, they argue that the EIS did not adequately analyze the cumulative and synergistic impacts of the Settlement Act's various provisions. Second, plaintiffs allege that the WEIS does not adequately study the effects on groundwater that would result from implementing the Settlement Act's various sections. Third, plaintiffs claim that the defendants have improperly segmented two closely related actions—wetlands acquisitions and the wetlands management plan. Fourth, plaintiffs argue that the proposed alternatives in the WEIS are incomplete and

are not true alternatives. The plaintiffs allege that the preferred alternative selected in the ROD is not feasible and was not fully analyzed. Finally, plaintiffs claim that the WEIS failed to analyze the effect of the proposed alternatives on certain resources, such as air quality and soil erosion.

A. *Adequacy of EIS as it Relates to Cumulative and Synergistic Impacts*

1. *NEPA Requirements*

Regulations implementing NEPA require that a federal agency consider the cumulative impacts of past, present, and reasonably foreseeable actions on the proposed action. *Save the Yakk Committee v. J.R. Block*, 840 F.2d 714 (9th Cir. 1988); *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985). Cumulative impacts is defined as:

> [T]he impact on the environment which results from the incremental impact of the action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 C.F.R. § 1508.7

An EIS must "catalogue adequately the relevant past projects in the area" and include a "useful analysis of the cumulative impacts of past, present and future projects." *City of Carmel-By-The-Sea v. U.S. Dept of Transp.*, 123 F.3d 1142, 1160 (9th Cir. 1997). To meet this requirement an EIS must discuss how future projects together with the proposed project will affect the environment. *Id.*; *Inland Empire Public Lands v. United States Forest Serv.*, 88 F.3d 754, 764 (9th Cir. 1996) (stating that cumulative impact analysis requires the agency to consider the combined effects of the project at issue with those of past, present, and foreseeable future

projects). This analysis must discuss the combined effects in sufficient detail to be "useful to the decisionmaker in deciding whether, or how, to alter the program to lessen cumulative impacts." *Id*; *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 810 (9th Cir. 1999).

2. *Parties Arguments*

The plaintiffs contend that the WEIS failed to adequately analyze the cumulative and synergistic impacts resulting from the implementation of related actions and the proposed action. The plaintiffs first state that the related actions were simply listed and that the WEIS never analyzed the impacts with sufficient detail. The plaintiffs also argue that the WEIS failed to analyze the synergistic effects of the Settlement Act's various provisions on agricultural providers and others relying on Newlands Project resources. Also, the plaintiffs contend that the WEIS unlawfully deferred the specific study of cumulative impacts from five of its fifteen acknowledged "related actions" to future EISs or EAs expected after section 206 has been approved.[28]

The defendants contend that the WEIS did take into account the cumulative impact of past, present, and reasonably foreseeable future projects. Defendants argue that the Service identified the related actions to the "project at issue" and then analyzed the cumulative and synergistic impacts of these related actions individually and collectively. (Defendants' Reply, p. 29) The defendants further argue that the plaintiffs criticism of the cumulative analysis is simply another version of plaintiffs' complaint that a programmatic EIS was required.

3. *Analysis*

The "project at issue" in the WEIS was described as "a proposal to acquire water and water rights from within a

[28] The deferred actions include the cumulative effects study of TROA, cui-ui recovery, OCAP, and the Stillwater wetlands management program.

portion of a single river basin for the benefit of wetlands within that same river basin." (Defendants' Reply to Plaintiffs' Opposition and Cross-Motion, p. 33) In section 4.26 (p.4-135) the WEIS discusses the cumulative impacts of the Settlement Act's various provisions in the proposed project area. The WEIS addresses the effects of Section 102 (acquisition of water rights for the Fallon Paiute-Shoshone Reservation agricultural lands), Section 205(a) (The Truckee River Operating Agreement), Section 206(c)(3) (NAS-Fallon Studies of Land Management options to reduce water use for aircraft safety purposes), Section 206(e) (Transfer of Carson Lake for use as wildlife refuge), Section 207(a) (recovery plans for endangered species and threatened Pyramid Lake fish), Section 209(j) (Newlands Project recoupment), Section 209(j)(2) (Adjustments to OCAP), the Truckee River Water Quality Settlement Agreement, and Section 206(g) (Transfer of the Indian Lakes Area). The WEIS also considered the cumulative impact of the NAS-Fallon Expansions, the growth and diversification of Churchill County, and agricultural production.

In *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800 (9th Cir. 1999), the Ninth Circuit held that cumulative analysis sections which "merely provide very broad and general statements devoid of specific, reasoned conclusions" are insufficient to satisfy the NEPA. *Id.* at 811. This Court does not find that the analysis of the cumulative impacts in the Wetlands FEIS is "general or one-sided." The WEIS does not simply "list" the related actions; it analyzes the impacts of the related actions individually and collectively. The analysis provided in the Wetlands FEIS is very different from the cumulative impact analysis the Ninth Circuit held in *Muckleshoot* was insufficient to meet NEPA. *Id.* In *Muckleshoot* the court found that the EIS merely provided general statements with no details as to the cumulative impacts the related actions would have on the

surrounding environment.[29] *Id.* The court cited as an example of the deficiency of the EIS the EIS's cumulative impact statement regarding the impact of proposed alternatives 2 and 3. The court stated that the impact statement "simply indicates the amount of land to be exchanged, and whether or not the land will be subject to commercial harvest. [The EIS] then concludes:

> 'Under Alternatives two and three, the Forest Service would manage for non-harvest uses an additional 16, 735 (16,876 Alternative 3) acres of young forest and non-forest vegetation. Most of this acreage . . . would over time develop greater species diversity and stand structure.'"

Id. The court noted that the statement did not contain any evaluation of the impact on natural resources of timber harvesting on the lands or upon surrounding areas. *Id.*

In this case, the WEIS considered the cumulative impact of its current proposal with certain related past and present actions, such as an earlier 20,000 AF water rights acquisition effort, and the expansion of the Naval Air station at Fallon, (WEIS p.4-148-149, 151-152). The EIS also considered the cumulative impact of reasonably foreseeable future actions, such as adjustments to OCAP, the negotiation of the TROA, and possible cui-ui recovery methods which were under consideration at the time.[30] (WEIS section 4.26.9, p.4-145 to

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[29] In *Muckleshoot Indian Tribe v. United States Forest Serv.*, 177 F.3d 800, 811 (9th Cir. 1999), the Ninth Circuit held that the EIS's treatment of cumulative impacts was insufficient. The court held that the cumulative effects discussion merely provided broad and general statements devoid of any specific or reasoned conclusions. *Id.*

[30] In addressing the effects of the cui-ui recovery under section 207(a) the WEIS discusses some suggestions made by the Cui-ui Recovery Plan of measures to increase the flow of water in the lower Truckee River. The WEIS states that the "Service recently released a draft environmental assessment that considered and evaluated several alternatives for acquir-

146 discusses OCAP, section 4.26.3, p. 4-138 discusses the TROA, and section 4.26.7, p.4-141 to 142 discusses the Pyramid Lake fishery recovery). In addition, the WEIS considered the cumulative impacts of the proposed action with other trends, such as the growth and diversification of Churchill County and agricultural production. (WEIS, p. 4-149 to 150, 4-152). Furthermore, in sections 4.26.16 and 4.26.17 the WEIS analyzes the anticipated cumulative impacts of these related actions collectively under the proposed alternative and the no action alternative. These sections are sufficiently detailed to make an informed the decision and to disclose to the public the environmental effects of the proposed action.[31]

The WEIS estimated that the acquisition of water rights for Lahontan Valley would occur over a period of 20 years. The WEIS then identified related actions and considered the potential impact of those actions, and the project at issue,

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ing water rights for cui-ui under a pilot program. The proposed pilot program called for the acquisition of up to 3,500 AF of water rights. Finalization of the EA has been delayed pending completion of an eight-year study to assess the population status of cui-ui." WEIS, p.4-142.

[31] In section 4.26.17 summary the cumulative effects of the Settlement Act's various provisions, although the WEIS does at times direct the reader to other sections that provide more in depth detail on the subject, the analysis of the cumulative impact of the Act's various sections and other foreseeable projects is not general or inadquate. For example, in discussing agriculture, farmland, local economy and land use, one section of the WEIS states:

> Acreage of irrigated farmland would decline in the Carson Division by another 15,400 acres and along the Middle Carson River by as much 4,800 acres, which further impact the agricultural communities in Churchill and Lyon Counties . . . . (Please Sections 4.16 and 4.19 for more detail and for information on possible mitigation measures.)

WEIS p.4-160.

upon the environment within the study area. Several examples illustrate that the WEIS adequately analyzed the cumulative impacts:

Acquisition of Water Rights for Fallon Paiute-Shoshane Reservation

Section 102 of the Act, authorizes the acquisition of water rights for the benefit of the Tribe. Although the Tribes have taken no action to implement this provision, the WEIS proceeds to describe the possible effects of implementing this section. The WEIS evaluates the effect on the water quality as water rights are transferred from one location in the Newlands project and applied to previously un-irrigated lands on the reservation. (WEIS, section 4.26.1, p. 4-135, 4-136) The WEIS's assessment of these water rights acquisitions examines the potentially adverse effects of the water acquisition on farmland, water quality, groundwater recharge, private land ownership, county tax rolls, and species habitat.[32] The WEIS evaluates each of these adverse effects under possible scenarios, provides alternative methods of reducing some of the effects, and points out the benefits that would be achieved. For example, the EIS states that water quality in individual drains will be affected as water rights are transferred from one location in the Newlands Project and applied to previously un-irrigated lands. The EIS evaluates these effects:

> The concentration of potentially toxic heavy metals in the water of some drains could experience temporary increases as rainwater leaches naturally occurring heavy

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[32] The WEIS states that the concentration of potentially toxic metals in the water will increase, that the "pattern of groundwater recharge from canal losses and on-farm losses would be shifted from areas in the Carson Division to reservation lands", that recharge of the shallow aquifer could be impacted, that their would be temporary declines in farmland habitat and riparian habitat, a reduction in privately-owned farmland in Carson Division. (WEIS 4-135, 4-136)

> metals and minerals from the newly-irrigated fields. The concentration of metals in the rainwater would be dependent on the quantity of materials in the newly irrigated soils. Drain water effluent from new fields would flow in to Stillwater [National Wildlife Refuge] NWR and, therefore, could potentially reduce water quality on the refuge for several years. Metals flushed from the soil would accumulate in the refuge. Continued irrigation is expected to flush most of the metals from the soil. The concentration of metals in drain water from newly irrigated fields is expected to decline to levels more comparable with existing drains within the area in about 5 to 7 years.

WEIS, section 4.26.1, p. 4-135.

Recovery Plans for endangered species

The WEIS does evaluate the cumulative impacts of acquiring more water to benefit the cui-ui even though there are no current proposals for section 207. The EIS states that water acquisition for the cui-ui may result in reduce flows in the Truckee canal as farms in the Truckee Division are taken out of production, which could then affect the groundwater recharge in the Fernley area. (WEIS p. 4-143) Another cumulative impact identified is the change in property tax revenues as taxable lands are removed from County tax rolls. (Id.) The WEIS also states that water purchased may affect the wetland acres at the Fernley WMA which could then affect the diversity and abundance of wetland-dependent species. (*Id.*)

TROA

The WEIS states that the TROA is still being negotiated and that it would be premature to speculate as to its provisions. However, the WEIS notes that any negotiated TROA is limited by the Orr Ditch decree and the Truckee River General Electric Decree and that, therefore, the TROA is not expected to impact the Newlands Project. (WEIS p. 4-138)

An agency is not required to consider every cumulative impact, just reasonably foreseeable ones. The plaintiffs argue that the TROA will have "negative impacts on Cui-ui and as such require purchase of additional Newlands Project water rights, thus, further reducing groundwater recharge in Lahontan Valley." (Plaintiffs' Opposition and CrossMotion,p. 41, citing Tab 139) A look at the document from which plaintiffs base their assertion reveals that such document merely states that mitigation efforts will have to be considered to offset any negative impact to the Cui-ui from section 204 and that such mitigation could come in the form of additional purchase of water rights. (*Id.*) The NEPA does not mandate that the agency have a "'fully developed plan that will mitigate environmental harm before an agency can act.'" *City of Alexandria v. Slater*, 198 F.3d 862, 870 (D.C. Cir. 1999) (quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 3321 (1989)). Also, the WEIS discloses that the TROA being negotiated in 1996 was to benefit the cui-ui by changing the timing flows of the Truckee River.

The Service even considered additional actions that would have an impact on the Project area. The WEIS in section 4.26.12 addressed the impact of growth and diversification of Churchill County. (WEIS p. 4-149) The WEIS assesses that an increase in growth in Churchill County will create more demand or groundwater supplies in Churchill County and that growth in Fallon could adversely effect the basalt aquifer recharge as well as shallow and intermediate aquifer recharge. (*Id.*) The WEIS also considers the impact of agricultural production. (WEIS p.4-152) The WEIS examines the impact of water rights acquisition or alfalfa production, which contributes about $16 million annually economic activity in Churchill County. (*Id.*)

In addition, the WEIS addressed the combined effect of the cumulative impacts under the preferred alternative and without the preferred alternative. (WEIS, p. 4-153 to 163)

The WEIS states that without the preferred alternative the cumulative effect of the activities described by the WEIS (basically the implementation of the provisions in the Settlement Act) would result in higher efficiency rates for the Newlands Project,[33] water quality of wetlands inflow will improve,[34] short term increase in wind erosion and mosquitos, growth in wetland dependent habitat, a decrease in farmland, an increase in recreational opportunities, a reduction in lands subject to property taxes, and enhance cultural resources. The anticipated impacts of the preferred alternative are generally as follows: improvement in Newlands delivery efficiency rates, increase water quality while decreasing basalt aquifer recharge, increase in pest problems, increase in wetland habitat, reduction in farmland overall although under this alternative less farmland may need to be purchased, and increase in revenue for Lyon County. (WEIS section 4.26.17, p.4-158 to 161).

The WEIS contains sufficient detail of the cumulative impacts to allow an informed decision on how to mitigate the impacts. Also, in response to plaintiffs' arguments the defendants could defer studies on the TROA, cui-ui recovery, and OCAP until later because these actions are not connected

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[33] The WEIS states that acquisition of water rights for the Fallon Reservation lands, adjusted OCAP, the implementation of the NAS-Fallon modified land management plan, growth in Churchill County and completion of the 20,000 AF water rights acquisition program will contribute to a rise in delivery efficiency rates in the Newlands Project. (WEIS p. 4-153) The WEIS points out that growth in Churchill County as well as conversion of farmland to residential use will decrease water efficiency. (*Id.*)

[34] The purchase of water rights within the Carson Division for use by the Reservation will impact the shallow water recharge. Residential development will also adversely impact shallow and intermediate aquifers. The WEIS recommends that a water system that supplements groundwater pumping with other sources, such as Newlands surface water, will reduce the impact to groundwater recharge. (WEIS p. 4-154)

or cumulative actions that need to be addressed in the same EIS. We find that the Service has taken a "hard" look at the environmental consequences. Our job is not to "question the wisdom of the Forest Service's ultimate decision or its conclusion concerning the magnitude of indirect cumulative impacts." *Colorado Envtl. Coalition v. Dombeck*, 185 F.3d 1162, 1176 (10th Cir. 1999). After examining the record and the WEIS we find that the Department's impact analysis does not violate NEPA.

B. *The EIS does not adequately study the effects on groundwater*

The plaintiffs next contend that the WEIS failed to provide an adequate study of the potential impacts of water rights acquisitions for the Lahontan Valley wetlands on groundwater in Churchill County and Fallon. The plaintiffs further claim that the Service failed to prepare studies of groundwater resources in the Lahontan Valley. We disagree.

The Court finds that the WEIS's groundwater discussion is "reasonably thorough." *See City of Carmel By-The-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1151 (9th Cir. 1997). The Service identified that impacts to groundwater quality and quantity were a major issue of public concern. (AR Tab 207, at 5187-5188) The Service reviewed existing studies conducted by the U.S. Geological Survey (USGS) of groundwater in Churchill County. (AR Tab 1147) In section 3.3.3 entitled "Groundwater" the WEIS describes the four principal aquifers of the Lahontan Valley in detail. The WEIS provides information on the aquifers depths, water yield, groundwater quality and groundwater recharge. The groundwater descriptions are sufficient to allow a reasonable person to understand the make-up of the groundwater in Churchill County.

The Service did not simply rely on stale or old scientific evidence. In 1991 the Service and Bureau of Reclamation

contracted with USGS to conduct two groundwater studies in the Lahontan Valley. The first study, undertaken by Ralph L. Seiler and Kip K. Allander of the USGS, studied the groundwater in the Newlands Project in an effort to (1) "determine the depth to the water table in the shallow aquifer; (2) determine the groundwater gradients in the shallow aquifer; (3) determine the direction of ground-water flow; and (4) design a network for future ground-water level monitoring." (AR Tab 297, at 6296).[35] The second study was conducted by Douglas Maurer and known as the "Maurer Report." It was published in 1994 and its objective was to develop a conceptual model of the entire groundwater system in the Carson Division of the Newlands and surrounding areas. (Tab 14688) The purpose of the model was "to describe potential effects of water-use changes on aquifer yield and ground-water quality." *Id.*

The studies were used by the Service to analyze the environmental impacts of each of the alternatives to groundwater recharge and drinking supplies in Churchill County. (WEIS 4-33-45) For example, the WEIS states that the most direct impact on groundwater levels and recharge as a result of the proposed action and alternatives will occur in the shallow aquifer. (4-33) The WEIS then proceeds to describe the possible impacts and possible measures to mitigate these impacts.[36] (WEIS p.4-38 to 39) In addition, in its comments

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[35] The Seiler & Allander study used existing as well as newly drilled observation wells and historical data to show that the construction of the canal and drain networks of the Newlands Project led to significant changes to the shallow aquifer in the Fallon Area, including a more uniform and shallower water table across the area in 1992 than 1904. The study also investigated water level changes in the shallow aquifer and found that they had changed little between 1977 and 1992.

[36] Some of the possible mitigation measures identified include maintaining Newlands Project irrigation delivery efficiency, to convey water to the primary wetlands using the Carson River channel, protective

and responses section the Service addressed the groundwater issues raised. (WEIS p. 6-14, 6-18, 6-19)

The plaintiffs seek too much from the WEIS. The NEPA "requires a 'reasonably thorough' discussion of the environmental consequences in question, not unanimity of opinion, expert or otherwise. Agency 'concerns' and criticism alone do not undermine the validity of an [EIS]." *City of Carmel-By-The Sea*, 123 F.3d at 1151. The plaintiffs have criticized the WEIS on the grounds that it failed to adequately address groundwater concern. The plaintiff's point to statements in the Maurer study that additional studies should be done. However, "NEPA does not require that [a court] decide whether an [EIS] is based on the best scientific methodology available." *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1333 (9th Cir. 1992). The fact that there are some uncertainties due to groundwater-irrigation relationships and pattern of water acquisitions, does not mean that the WEIS is inadequate: An agency "takes a sufficient hard look when it obtains opinions from its own experts, obtains opinions from experts outside the agency, gives careful scientific scrutiny and responds to all legitimate concerns that are raised." *Hughes River Watershed Conservancy v. Johnson*, 165 F.3d 283, 288 (4th Cir. 1999) (citing *Marsh*, 490 U.S. at 378-85).

The Service relied on current scientific studies and analyzed its proposed alternatives based on the evidence produced by the studies. The WEIS provides sufficient information for the public to be aware of the possible outcomes and for a decisionmaker to determine the best course of action to take to mitigate the possible effects. Under the arbitrary and capricious standard the court's deference to the agency is greatest "when reviewing technical matters within [the agency's] area of expertise, particularly its choice of scientific data and statistical methodology." *Fuste v. Verity*, 853 F.2d

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restrictions or targeting of agricultural lands to keep such lands irrigated. (WEIS p.4-39)

322, 329 (5th Cir. 1988). The court finds that the WEIS has taken a hard look at the environmental consequences and that the Service's procedure "resulted in a reasoned analysis of the evidence before it." *Oregon Env. Council v. Kunzman*, 817 F.2d 484, 496 (9th Cir. 1987).

C. *Defendants have segmented two closely related actions: wetlands water acquisitions and the wetlands management plan*

The Plaintiffs contend that the WEIS should have considered the "wetlands management plan" and the wetlands water acquisitions in the same EIS because these two actions are closely related and connected actions. Plaintiffs argue that segmenting these two projects obscures their combined consequences and undermines the study of project impacts, mitigation, and alternatives. The plaintiff's point out that while defendants characterize the management plan as fine tuning, they state elsewhere that a more "in-depth" examination of the management strategies could actually reduce the total number of water demand needed for wetlands under section 206. Plaintiffs also argue that the "wetlands management plan" will consider water management strategies which will affect the region.

Defendants have a variety of responses. First, defendants point out that the plan is not a wetlands management plan but rather a revision of an existing 1987 conservation management plan that will address the entire wildlife refuge. Second, defendants argue that both actions are not closely related or connected actions because section 206 does not trigger the revision of the refuge management plan and both sections are derived from separate legal authorities and have separate purposes.

The Court finds that the management plan and the acquisition of water rights under section 206 of the Settlement Act are not closely related or connected actions.

First, the management plan and the acquisition of the water rights are independent actions. The creation of a conservation plan is the result of recently enacted legislation. In the National Wildlife Refuge System Improvement Act of 1997, Pub. L. 105-57, Congress amended the National Wildlife Refuge System of Administration Act of 1996 and required the Secretary to "prepare a comprehensive conservation plan under this subsection for each refuge within 15 years after the date of enactment." 16 U.S. C § 668dd (e) (1) (B) . The plans are required to identify and describe:

(A) the purposes of each refuge comprising the planning unit;

(B) the distribution, migration patterns, and abundance of fish, wildlife, and plant populations and related habitats within the planning unit.

(C) the archaeological and cultural values of the planning unit;

(D) such areas within the planning unit that are suitable for use as administrative sites or visitor facilities;

(E) significant problems that may adversely affect the populations and habitats of fish, wildlife, and plants within the planning unit and the actions necessary to correct or mitigate such problems; and

(F) opportunities for compatible wildlife-dependent recreational uses.

16 U.S.C. § 668dd (e)(2). It is pursuant to this legislation that the Service is preparing a comprehensive conservation plan for the Stillwater NWR. The authority for acquiring water rights for the Lahontan Valley is derived from section 206 of the Settlement Act. The implementation of section 206 did not automatically trigger the preparation of the conservation plan.

Furthermore, each of the two actions have independent utility and are not inextricably intertwined. The primary purpose of preparing a new comprehensive conservation plan is to assess the variety and number of species inhabiting the wildlife area and to determine the current state of their habitat. This assessment should in turn help the agency determine what strategies or procedures it should implement to help preserve the existing species. For example, the existing conservation plan of 1987 discusses a variety of measures for increasing the number of species, such as protection of certain plant species and feeding strategies.[37] Although the Service proposes to address the management of 14,000 out of 25,000 acres of primary wetland, the focus of the conservation plan is much broader than simply to analyze the management of water on the Stillwater refuge. The primary purpose of section 206 is the acquisition of water rights to sustain 25,000 acres of primary wetland habitat. Section 206 can proceed without the management plan and the management plan can proceed without section 206. While the two actions may benefit from the existence of each other, it is not irrational or unwise for each to be considered separately.

D. *The proposed alternatives in the WEIS are incomplete and are not true alternatives and the proposed Alternative 5 is not feasible and was never properly analyzed.*

Range of alternatives

The plaintiffs argue that the WEIS failed to analyze a reasonable range of feasible alternatives and that alternative 5

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[37] It is important to note here that the 1987 Refuge Management Plan only covers a portion of the primary wetland areas for which water is to be acquired under section 206(a) and that the Service did not use the 1987 Refuge Management plan to determine the amount of water they needed to purchase under section 206.

was not fully analyzed. Plaintiffs fault the range of alternatives in three respects. First, plaintiffs contend that the Service should have included wetlands management in the discussion of alternatives. Second, plaintiffs criticize the Service for narrowly defining the type of wetland habitat considered in the WEIS. Third, the plaintiffs contend that the wetlands FEIS alternatives are not true alternatives.

NEPA requires an environmental statement to discuss the "reasonable alternatives" to the proposed agency action. 42 U.S.C. § 4332(2)(C)(iii). The rule of reason guides "both the choice of alternatives as well as the extent to which the [e]nvironmental [i]mpact [s]tatement must discuss each alternative." *City of Carmel-By-The-Sea v. United States Dep't of Transp.*, 123 F.3d 1142, 1155 (9th Cir. 1997). Under the rule of reason an agency does not have to consider an infinite range of alternatives, it simply has to consider reasonable or feasible alternatives. 40 C. F. R. § 1502 .14(a)-(c).

The plaintiffs contend that the WEIS is inadequate because it fails to include the proposed comprehensive wetlands management plan. The plaintiffs argue that without taking into consideration the plan, in particular water delivery patterns, the alternatives cannot be fully utilized. However, the plaintiffs fail to describe in more detail how the exclusion of the management plan has made the alternatives inadequate. As discussed above, this court found that the plan is not a connected action that requires inclusion in the WEIS. The plan is an independent action that can be carried out without implementation of section 206. As far as criticism on the delivery patterns used in the alternatives, the WEIS states that the alternatives considered are based on current irrigation patterns and existing Newlands Project delivery system.[38]

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[38] In section (9) the WEIS states that "[a]ll deliveries of acquired irrigation water will be made through the existing Newlands Project delivery system." (WEIS p. 2-16) Section (10) states that the "Service will use the current irrigation pattern, based on full allocation of agricultural

(WEIS 2-16, 2-17) In addition, defendants note that the memorandum from Mr. Alcorn cited by plaintiffs omits that Mr. Alcorn suggested an alternative "that considers importation of water from outside the basin or groundwater sources." (AR Tab 908) This suggested alternative was developed and considered by the Service--it is alternative 5. It appears that the WEIS has provided the information plaintiffs claim was needed.

Plaintiffs also contend that the Service's definition of "wetland habitat" is too narrow and that variation in wetland habitat should have been included. The WEIS defines "wetland habitat" as "habitat provided by shallow to deep water (up to 6-feet deep) and associated vegetation in the primary wetlands. As such, primary wetland habitat only exists to the extent that a primary wetland or portion of a primary wetland is covered with water." (WEIS p. 1-2) The plaintiffs contend that P.L. 101-618, the Settlement Act, does not include such a definition.

Under *Chevron, USA, Inc. v. Natural Resources Defense Council*, 467 U.S. 837 (1984), if a court determines that "Congress has directly spoken to the precise question at issue," then "that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress." *Id.* at 842-843. If, however, the agency's statutory-interpretation "fills a gap or defines a term in a way that is reasonable in light of the legislature's revealed design, [the court is to] give [that] judgment 'controlling weight.'" *NationsBank of N. C., N.A. v. Variable Annuity Life Ins. Co.*, 513 U.S. 251, 257 (1995) (quoting *Chevron, supra*, at 844). The Settlement Act, P.L. 101-618, has not defined the term primary wetland habitat. The Settlement Act simply directs the Secretary to sustain, on a long-term average, 25,000 acres of "primary wetland habitat

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irrigation deliveries as the basis for impact assessment in this document." (WEIS p.2-17)

within the Lahontan Valley wetlands." Sections 203, 206(a). Therefore, the Service's definition must be upheld if it is reasonable. The Court finds that the Service's definition is consistent with the purposes of Title II and is a reasonable interpretation.

The Service explains that wetlands and wetland habitat are not synonymous. In the WEIS, primary wetland habitat is defined as follows:

> [H]abitat provided by shallow or deep water (up to 6 feet deep), with or without emergent and aquatic vegetation in the designated Lahontan Valley wetlands at Stillwater National Wildlife Refuge, Stillwater Wildlife Management Area, Carson Lake and Pasture, and the Fallon Indian Reservation. Primary wetland habitat only exists when and where a primary wetland or portion of a primary wetland is flooded with water (visible surface water). Consequently, the size and shape of "primary wetland habitat" will fluctuate from season-to-season and year-to-year while the size and shape of the "primary wetland" within which primary wetland habitat occurs will remain constant from season to season and from year to year. Primary wetlands only provide habitat for waterfowl, shorebirds, muskrats, aquatic insects, and other wetland dependent wildlife when they contain surface water (i.e., when they provide wetland habitat).

(WEIS, Glossary at 8) Conversely, the Service follows the definition of wetland found in the EPA's wetland manual. The manual defines wetlands as "areas of landscape where land and water meet. In general they are lands that are either inundated with surface water or saturated with groundwater long enough during the growing season to make it necessary for the vegetation to adapt to growing saturated soil conditions." (WEIS, Comment 34)

The Settlement Act states that one of the purposes of the Act is to "protect significant wetlands from further degradation and enhance the habitat of many species of wildlife which depend on those wetlands . . . ." Section 202(g). Section 206 also reiterates that the purpose of the water purchased under section 206(a) is to sustain on a long-term basis approximately 25,000 acres to benefit fish and wildlife. The Service has described in the WEIS some of the species that depend on wetland habitat. These include several species of fish and birds that have been affected by the reduction in water. We agree with defendants that the intent of the Settlement Act was to provide a habitat for wetland-dependent species and that the agency's expertise for managing national wildlife refuges have led to a reasonable interpretation of the term "wetland habitat."

Plaintiffs also assert that alternatives 2, 3, and 4 are not "true" alternatives because they entail the same quantities of water. NEPA provides that an EIS must include alternatives to the proposed action. 42 U.S.C. §§ 4332(C), 4332(2)(E). The CEQ regulations provide guidelines for examining alternatives. 40 C.F.R. §§ 1502.14, 1502.16. The regulations call the alternative section "the heart of the environmental impact statement." 40 C.F.R. § 1502.14. "An EIS aids the agency's own decisionmaking process by ensuring that the agency has before it 'all possible approaches to a particular project . . . which would alter the environmental impact and the cost-benefit balance.'" *Methow Valley Citizens Council v. Regional Forester*, 833 F.2d 810, 814 (9th Cir. 1987) (quoting *State of Alaska v. Andrus*, 580 F.2d 465, 474 (D.C.Cir.), vacated in part sub nom. *Western Oil & Gas Ass'n v. Alaska*, 439 U.S. 922 (1978)).

To be adequate, an environmental impact statement must consider every reasonable alternative. The range of alternatives that must be considered in the EIS need not extend beyond those reasonably related to the purposes of the

project. *City of Angoon v. Hodel*, 803 F.2d 1016, 1021-22 (9th Cir. 1966). An EIS is rendered inadequate by the existence of a viable but unexamined alternative. Furthermore, even if an alternative requires 'legislative action', this fact 'does not automatically justify excluding it from an EIS.' Thus, the range of alternatives considered must be sufficient to permit a reasoned choice. *Methow Valley*, 833 F.2d at 815 (citations omitted).

The purpose of the proposed action in the Wetlands EIS was the implementation of the directive in section 206(a) of P. L. 101-618, to acquire water and water rights to sustain 25,000 acres of primary wetland habitat. The WEIS considered four action alternatives as well as a "no action alternative." The defendants argue that there are important differences between the alternatives. Alternatives 2 and 3 factor drainwater into the estimate of water needed to meet the projects goals, while Alternative 4 does not. Also, Alternative 2 and 3 rely predominantly on the acquisition of water rights through the purchase of water rights from willing sellers in the Carson Division of the Newlands Project. (WEIS p. 2-22) The WEIS states that alternative 4 relies on the acquisition of irrigation water rights. Alternative 5 limits the acquisition of agricultural surface water rights and relies on other acquisition methods and water resources. These methods include leasing of water rights and pumping of the Lahontan Valley. (WEIS 2-28 and 2-29) Furthermore, Alternative 5 expands the scope of the area from which the water is to be acquired to include the area upstream of Lahontan Reservoirs and outside the Newlands Project area.

Alternative 2 assumes that only the consumptive-use portion of Newlands Project water rights acquired by the Service would be transferred to the wetlands. (WEIS p. 2-22 to 23) This would be 2.99 acre feet (af) per acre per year, which is the rate allowed under the Alpine Decree. (WEIS p. 2-22) Under Alternative 3, the Service analyzes a scenario in

which the entire water duty of a project water right, approximately 3.50 feet per acre per year of bottom lands, would be transferred to the wetlands. (WEIS p. 2-24 to 2-26) The WEIS then proceeds to explain some of the problems that may be faced with Alternative 3. (WEIS p. 2-24) The WEIS reveals that there are legal obstacles that would need to be addressed and overcome.[39] The plaintiffs contend that Alternative 3 is not a "true" alternative because it is "nearly impossible" for the Service to acquire that much water under state law. CEQ regulation concerning alternatives in an EIS requires the Service to include "reasonable alternatives not within the jurisdiction of the lead agency." 40 C.F.R. § 1502.14(c).[40] In addition, CEQ regulations state that in dis-

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[39] The WEIS states that the transfer rate as high as 3.5 AF/acre/year in Alternative 3 may be inconsistent with the Alpine Decree. Also, the "ability to transfer at this rate would be contingent upon the State Engineer finding that downstream water-right holders would not be injured by a proposed transfer at this rate and accepting the argument that wetlands uses would be similar enough to existing agricultural irrigation so as not to constitute a change in use." (WEIS p. 2-24).

[40] This section states that alternatives are the hear of the environmental impact statement and directs the agencies to:

> (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from the study, briefly discuss the reasons for their having been eliminated.
>
> (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
>
> (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
>
> (d) Include the alternative of no action.
>
> (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

cussing alternatives and environmental impacts the EIS should discuss "possible conflicts between the proposed action and the objectives of federal, regional, state and local . . . land use plans, policies, and controls for the area concerned." *Id.* §1502.16. The Court finds that the WEIS discusses a reasonable range of alternatives that provide sufficient information from which to make a reasoned decision. There are sufficient differences in water acquisition methods to make the alternatives separate possible courses of action.

Adequacy of proposed Alternative 5

The plaintiffs criticize the preferred alternative chosen by the federal government on various grounds and allege that it is not a feasible alternative. The plaintiffs contend that the Service did not consider impacts associated with groundwater, pumping or purchase of water rights from the middle segment of the Carson River. (Plaintiffs' Opposition and Cross-Motion, p. 50) The plaintiffs note that Alternative 5 is not a feasible alternative because the State Engineer has declared that no additional groundwater pumping rights appropriations are possible in the Carson Desert Basin. (*Id.* at p. 50-51) In addition, the plaintiffs argue that the availability of water from other sources is uncertain and never fully analyzed.

Plaintiffs' contention that Alternative 5 was a last minute effort to "mask impact concerns" is disputed by the evidence. A draft of Alternative 5 was included in the draft version of the public draft EIS and was described in detail. (AR Tab 1049) The Court also notes that the Service asked Churchill County for input regarding alternatives and that the County

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(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

40 C.F.R. § 1502.14.

chose not to participate.[41] (Defendants' Reply, p.50-51) Some courts have stated that while it is the agency's responsibility to study and develop alternatives, parties challenging an EIS bear a responsibility to "structure their participation so that it is meaningful, so that it alerts the agency to the intervenors 'position and contentions.'" *Moronao Band of Mission Indians v. Federal Aviation Admin.*, 161 F.3d 569, 576 (9th Cir. 1998) (quoting *Vermont Yankee Nuclear Power Corp. v. National Resources Defense Council, Inc.*, 435 U.S. 519, 553 (1978)).

In addition, the records show that rather than being a sham to mask impact concerns, Alternative 5 was developed in response to concerns that the other alternatives would have severe impacts on the agricultural community within Churchill County due to the alternatives heavy reliance on the purchase of water rights within the Carson Division. Alternative 5 sets a limit on the amount of water rights that may be purchased and considers other methods of acquiring water such as leasing options, groundwater pumping rights, and upstream water right purchases. (WEIS p. 2-28 to 29)

The WEIS did reveal that there would be problems that would have to be overcome which were not wholly within the agency's control. In response to the plaintifs allegations as to groundwater pumping, the WEIS considered new groundwater pumping but also considered acquiring existing groundwater pumping rights. The WEIS also took into account other methods for acquiring water and in fact the Service has

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[41] The Service provided the County with a copy of the draft EIS in 1994 and that County submitted 53 pages of comments. (AR Tabs 925, 930) The County also informed the Service that it was developing options for a fifth alternative and asked if the Service would implement these ideas. (AR Tab 946, at 13205) The Service met with the County to discuss the County's concerns. Soon after the meeting, the Service received a letter from the County stating that it was putting together an alternative but one was never submitted. (Defendants Reply to Plaintiffs' Opposition and Cross-Motion, p. 51)

carried out one of those methods by purchasing 1,570 acres of land with 4.005 af of water per annum.

The plaintiffs have not alleged that the Service failed to examine a particular viable alternative. *Muckleshoot Indian Tribe v. Unites States Forest Serv.*, 177 F.3d 800 (9th Cir. 1999); *see also Olmestead Citizens for a Better Community v. United States*, 793 F.2d 201, 209 (8th Cir. 1986) (stating that the challengers to the EIS to succeed on their claims must "make some showing that feasible alternatives exist"); *River Rd. Alliance Inc. v. Corps of Engineers of United States Army*, 764 F.2d 445, 452-53 (7th Cir. 1985) ("The Corps was entitled not to conduct a further study of alternatives unless the plaintiffs were prepared to shoulder the burden of showing that the [Corps] had overlooked some plausible alternative site . . . ."). Rather the plaintiffs are criticizing the range of alternatives and the alternative that has been chosen. However, NEPA does not require an agency to reach a particular result. NEPA requires an agency to describe the alternatives with sufficient detail so that the public and others can understand the possible environmental impacts. The agency must also under NEPA describe any mitigating measures that can be taken to minimize the impacts of implementing their proposed action.

The Court finds that the range of alternatives satisfies NEPA and that Alternative 5 is a reasonable, viable alternative. Once alternatives are "evaluated in reasonable depth, an agency is free to make any non-arbitrary choice, among them, even to choose an alternative more environmentally harmful than other options." *Surfrider Found. v. Dalton*, 989 F.Supp. 1309, 1326 (S.D. Cal. 1998).

F. *Failure of WEIS to analyze important resources impacts*

Plaintiffs contend that the WEIS failed to adequately analyze the impact on air quality, soil erosion, and certain wildlife habitat of purchasing water rights for section 206.

The plaintiffs also allege that the WEIS failed to include any mitigation measures for lands retired from agricultural production in the Lahontan Valley. They contend that particulate matter (PM) levels may be increased due to wind erosion and plant loss. The Court does not find these arguments persuasive.

The WEIS did address air quality and in fact considered the problem of an increase in suspended particulate less than 10 microns in size (PM10).[42] The WEIS states that the "Service's proposed action and alternatives have the potential to increase dust associated with vacant farmland that result when water rights are acquired." (WEIS, section 4.5, p.4-51) The WEIS then proceeds to analyze the potential impact on air quality under each alternative. (WEIS p. 4-51 to 53) The Service's analysis concludes that Alternative 4 has the greatest potential to increase fugitive dust from vacant lands. (WEIS p. 4-52) In Section 4.4.2 the WEIS addresses possible mitigation measures that could be implemented to reduced soil erosion and therefore decrease the effect on air quality. (WEIS p. 4-48) The WEIS suggests that the Service could revegetate certain areas, include land treatment efforts, maintain pasture or protect existing cover crop from disturbance. (WEIS p.4-48).

In section 3.4.2 the WEIS addresses the issue of soil erosion. (WEIS 3-53) The WEIS summarizes research by the

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[42] The federal Clean Air Act, last amended 1990, establishes standards for air quality. The State of Nevada standards are equal to or more stringent than the federal standards. (WEIS p. 3-56) The state adopted in 1991, PM10 at the ambient standard for suspended particulate matter, replacing total suspended particulates (TSP) counts. "Suspended particulates that are less than 10 microns (PM10) are considered to be inhalable and correlate to adverse health effects of particulates. The Nevada standards for PM10 are 50 micrograms per cubic meter for the annual arithmetic mean and 150 [micrograms per cubic meter] for a 24-hour period." (WEIS p.3-56)

Natural Resource Conservation Service (NRCS) on how estimates of soil erosion are calculated and how soil erosion can be diminished. (*Id.*) Vegetative cover and crop residue appear to be the most effective methods of reducing soil erosion.[43] The Service discusses the effects on soil erosion that could occur under each alternative. (WEIS p.4-47) The WEIS considered whether farmland could be converted to other uses and measures for reducing wind erosion that will occur as irrigated farms are retired. (WEIS p. 4-48) In the ROD, the Service committed to using revegetation as a mitigation measure to reduce soil erosion on lands acquired within Stillwater NWR. (AR Tab 1217, at 19921) In addition, for lands acquired outside the Stillwater NWR boundaries, the Service will evaluate the potential for wind erosion and adverse impacts for air quality and plans to take appropriate action depending on the effect on air quality. (*Id.* at 19922) We agree with the defendants that NEPA does not require an agency to adopt any mitigation measure. NEPA simply requires an agency to describe potential mitigating measures that may be implemented.

The WEIS also addressed desert shrub plan communities and potential impacts to those communities of implementing section 206. (WEIS p. 3-71; 4-62) The WEIS stated that there "may be a slight increase in desert shrub plant communities within the affected area as vacant farmlands are naturalized. However, because there already is a vast amount of desert shrub habitat in the affected area, the relatively small increases brought about by these alternatives would be negligible." (WEIS p. 4-62) Based on the administrative record and the WEIS, we find that the WEIS sufficiently analyzed the impacts on air quality, soil erosion, and plant life.

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[43] Research carried out on revegetation shows that native shrub species can become established on disturbed areas in as few as four years. (WEIS p. 3-54)

Conclusion

The Court finds that sections 205, 206, 207, 209, and 210 (b) (16) are not connected or cumulative actions that need to be considered in one EIS. These sections are not inextricably intertwined or interdependent on one another. In addition, we find that the wetlands final environmental impact statement meets the procedural requirements set out by NEPA. The WEIS adequately analyzes the potential adverse environmental impacts of implementing section 206 and considers a wide range of reasonable, feasible alternatives. In short, we find that the agency has taken the requisite "hard look."

IT IS, THEREFORE, HEREBY ORDERED THAT defendants renewed motion (#132) for summary judgment on the programmatic environmental impact statement claims is *GRANTED.*

IT IS FURTHER ORDERED THAT plaintiffs' cross-motion for summary judgment (#134) on the adequacy of the wetlands environmental impact statement is *DENIED.*

IT IS, HEREBY, FURTHER ORDERED THAT defendants' cross-motion for summary judgment (#145) on the adequacy of the wetlands environmental impact statement is *GRANTED.*

The clerk shall enter judgment accordingly.

DATED: March 30, 2000.

/s/ Edward C. Reed
EDWARD C. REED
UNITED STATES DISTRICT JUDGE

APPENDIX D

UNITED STATES PUBLIC LAWS
101ST CONGRESS-SECOND SESSION

(c) 1990, REED ELSEVIER INC. AND
REED ELSEVIER PROPERTIES INC.

PUBLIC LAW 101-618 [S. 3084]

NOVEMBER 16, 1990

FALLON PAIUTE SHOSHONE INDIAN TRIBES WATER RIGHTS SETTLEMENT ACT OF 1990

101 P.L. 618; 104 Stat. 3289; 1990 Enacted S. 3084;
101 Enacted S. 3084

An Act To provide for the settlement of water rights claims of the Fallon Paiute Shoshone Indian tribes and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

TITLE II—TRUCKEE-CARSON-PYRAMID LAKE WATER SETTLEMENT

SEC. 201. SHORT TITLE.

This title may be cited as the "Truckee-Carson-Pyramid Lake Water Rights Settlement Act".

* * * *

SEC. 205. TRUCKEE RIVER WATER SUPPLY MANAGEMENT.

(a) OPERATING AGREEMENT.—

(1) The Secretary shall negotiate an operating agreement (hereafter "Operating Agreement") with the State

of Nevada and the State of California, after consultation with such other parties as may be designated by the Secretary, the State of Nevada or the State of California.

(2) The Operating Agreement shall provide for the operation of the Truckee River reservoirs and shall ensure that the reservoirs will be operated to:

(A) satisfy all applicable dam safety and flood control requirements;

(B) provide for the enhancement of spawning flows available in the Lower Truckee River for the Pyramid Lake fishery in a manner consistent with the Secretary's responsibilities under the Endangered Species Act, as amended;

(C) carry out the terms, conditions, and contingencies of the Preliminary Settlement Agreement as modified by the Ratification Agreement. Mitigation necessary to reduce or avoid significant adverse environmental effects, if any, of the implementation of the Preliminary Settlement Agreement as modified by the Ratification Agreement, including instream beneficial uses of water within the Truckee River basin, shall be provided through one or more mitigation agreements which shall be negotiated and executed by the parties to the Preliminary Settlement Agreement as modified by the Ratification agreement and the appropriate agencies of the States of Nevada and California;

(D) ensure that water is stored in and released from Truckee River reservoirs to satisfy the exercise of water rights in conformance with the Orr Ditch decree and Truckee River General Electric decree, except for those rights that are voluntarily relinquished by the parties to the Preliminary Settlement Agreement as

modified by the Ratification Agreement, or by any other persons or entities, or which are transferred pursuant to State law; and

(E) minimize the Secretary's costs associated with operation and maintenance of Stampede Reservoir.

(3) The Operating Agreement may include, but is not limited to, provisions concerning the following subjects:

(A) administration of the Operating Agreement, including but not limited to establishing or designating an agency or court to oversee operation of the Truckee River and Truckee River reservoirs;

(B) means of assuring compliance with the provisions of the Preliminary Settlement Agreement as modified by the Ratification Agreement and the Operating Agreement;

(C) operations of the Truckee River system which will not be changed;

(D) operations and procedures for use of Federal facilities for the purpose of meeting the Secretary's responsibilities under the Endangered Species Act, as amended;

(E) methods to diminish the likelihood of Lake Tahoe dropping below its natural rim and to improve the efficient use of Lake Tahoe water under extreme drought conditions;

(F) procedures for management and operations at the Truckee River reservoirs;

(G) procedures for operation of the Truckee River reservoirs for instream beneficial uses of water within the Truckee River basin;

(H) operation of other reservoirs in the Truckee River basin to the extent that owners of affected storage rights become parties to the Operating Agreement; and

(I) procedures and criteria for implementing California's allocation of Truckee River water.

(4) To enter into effect, the Operating Agreement shall be executed by the Secretary, the State of Nevada, and the State of California and shall be submitted to the Orr Ditch court and the Truckee River General Electric court for approval of any necessary modifications in the provisions of the Orr Ditch decree or the Truckee River General Electric decree. Other affected parties may be offered the opportunity to execute the Operating Agreement.

(5) When an Operating Agreement meeting the requirements of this subsection has been approved by the Secretary, the State of Nevada, and the State of California, the Secretary, pursuant to title 5 of the United States Code, shall promulgate the Operating Agreement, together with such additional measures as have been agreed to by the Secretary, the State of Nevada, and the State of California, as the exclusive Federal regulations governing the Operating Agreement. The Secretary and the other signatories to the Operating Agreement shall, if necessary, develop and implement a plan to mitigate for any significant adverse environmental impacts resulting from the Operating Agreement. Any subsequent changes to the Operating Agreement must be adopted and promulgated in the same manner as the original Operating Agreement. Any changes which affect the Preliminary Settlement Agreement as modified by the Ratification Agreement must also be approved by the signatories thereto. Judicial review of any such promulgation of the Operating Agreement may be had by any aggrieved

party in the United States District Court for the Eastern District of California or the United States District Court for District of Nevada. A request for review must be filed not later than 90 days after the promulgation of the Operating Agreement becomes final, and by a person who participated in the administrative proceedings leading to the final promulgation. The scope of such review shall be limited to the administrative record and the standard of review shall be that prescribed in 5 U.S.C. 706(2)(A)-(D): *Provided*, That the limits on judicial review in this paragraph shall not apply to any claim based on the provisions of the Endangered Species Act, as amended.

(6) The Secretary shall take such other actions as are necessary to implement the Preliminary Settlement Agreement as modified by the Ratification Agreement and to implement the Operating Agreement, including entering into contracts for the use of space in Truckee River reservoirs for the purposes of storing or exchanging water, subject to the preconditions that the Sierra Pacific Power Company and the Secretary shall have executed a mutually satisfactory agreement for payment by Sierra-Pacific Power Company of appropriate amounts for the availability and use of storage capacity in Stampede Reservoir and other reservoirs.

(7) As provided in the Preliminary Settlement Agreement as modified by the Ratification Agreement, firm and non-firm municipal and industrial credit water and the 7,500 acre-feet of fishery credit water in Stampede Reservoir to be available under worse than critical drought conditions shall be used only to supply municipal and industrial needs when drought conditions or emergency or repair conditions exist, or as may be required to be converted to fishery credit water. None of

these quantities of water shall be used to serve normal year municipal and industrial needs except when an emergency or repair condition exists.

(8) Subject to the terms and conditions of the Preliminary Settlement Agreement as modifed by the Ratification Agreement, all of the fishery credit water established thereunder shall be used by the United States solely for the benefit of the Pyramid Lake fishery.

(9) In negotiating the Operating Agreement, the Secretary shall satisfy the requirements of the National Environmental Policy Act and regulations issued to implement the provisions thereof. The Secretary may not become a party to the Operating Agreement if the Secretary determines that the effects of such action, together with cumulative effects, are likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of any designated critical habitat of such species.

(b) AUTHORIZATION FOR USE OF WASHOE PROJECT FACILITIES, TRUCKEE RIVER STORAGE FACILITIES, AND LAKE TAHOE DAM AND RESERVOIR.—

(1) The Secretary is authorized to use Washoe Project facilities, Truckee River Storage Project facilities, and Lake Tahoe Dam and Reservoir for the storage of non-project water to fulfill the purposes of this title, including the Preliminary Settlement Agreement as modified by the Ratification Agreement and the Operating Agreement. The Secretary shall collect appropriate charges for such uses.

(2) Payments received by the Secretary pursuant to this subsection and paragraph 205(a)(6) shall be credited annually first to pay the operation and maintenance costs of Stampede Reservoir, then covered into the Lahontan Valley and Pyramid Lake Fish and Wildlife Fund

created pursuant to subsection 206(f) of this title, with funds not needed for those purposes, if any, credited to the Reclamation Fund.

(3) The Secretary is authorized to enter into an interim agreement with the Sierra Pacific Power Company and Pyramid Lake Tribe to store water owned by Sierra Pacific Power Company in Stampede Reservoir, except that the amount of such storage shall not exceed 5,000 acre-feet on September 1 of any year, such agreement shall be superseded by the Preliminary Settlement as modified by the Ratification Agreement and the Operating Agreement upon the entry into effect of those agreements.

(c) RELEASE OF WASHOE PROJECT REPAYMENT OBLIGATION.—

The Secretary is released from any obligation to secure payment for the costs of constructing Washoe Project facilities, other than the power plant, including those specified in the Act of August 1, 1956, 70 Stat. 775, and under Federal reclamation laws, and such costs are hereby made non-reimbursable. Authority to construct a reservoir at the Watasheamu site, together with other necessary works for impoundment, diversion, and delivery of water, generation and transmission of hydroelectric power, and drainage of lands as conferred to the Secretary in the Act of August 1, 1956, 70 Stat. 775, is hereby revoked.

SEC. 206. WETLANDS PROTECTION.

(a) AUTHORIZATION TO PURCHASE WATER RIGHTS.—

(1) The Secretary is authorized and directed, in conjunction with the State of Nevada and such other parties as may provide water and water rights for the purposes of this section, to acquire by purchase or other means water and water rights, with or without the lands to

which such rights are appurtenant, and to transfer, hold, and exercise such water and water rights and related interests to sustain, on a long-term average, approximately 25,000 acres of primary wetland habitat within the Lahontan Valley wetlands in accordance with the following provisions of this subsection:

(A) water right acquired under this subsection shall, to the maximum extent practicable, be used for direct application to such wetlands and shall not be sold, exchanged, or otherwise disposed of except as provided by the National Wildlife Refuge Administration Act and for the benefit of fish and wildlife within the Lahontan Valley;

(B) the Secretary shall select from any water rights acquired pursuant to this subsection those water rights or portions thereof, if not all, that can be transferred to the wetlands referenced in this subsection consistent with subsection 209(b) of this title; and

(C) in implementing this subsection, the Secretary shall consult with the State of Nevada and affected interests. Those water rights or portions thereof, if not all, which the Secretary selects for transfer shall then be transferred in accordance with applicable court decrees and State law, and shall be used to apply water directly to wetlands. No water rights shall be purchased, however, unless the Secretary expects that the water rights can be so transferred and applied to direct use to a substantial degree.

(2) Acquisition of water rights and related interests pursuant to this subsection shall be subject to the following conditions:

(A) water right purchases shall be only from willing sellers, but the Secretary may target purchases in areas deemed by the Secretary to be most beneficial to such a purchase program;

(B) water rights acquired by the Secretary shall be managed by the Secretary after consultation with the State of Nevada and affected interests, except that any water rights acquired for Fallon Indian Reservation wetlands shall be managed by the Secretary in consultation with the Fallon Tribe; and

(C) prior to acquiring any water or water rights in the State of California for the Lahontan Valley wetlands, the Secretary shall first consult with the Governor of California and shall prepare a record of decision on the basis of such consultations.

(3) The Secretary is authorized to:

(A) use, modify, or extend, on a non-reimbursable basis, Federal water diversion, storage, and conveyance systems to deliver water to wetlands referenced in paragraph (a)(1) of this subsection, including the Fernley Wildlife Management Area;

(B) reimburse non-Federal entities for reasonable and customary costs for operation and maintenance of the Newlands Project associated with the delivery of water in carrying out the provisions of this subsection; and

(C) enter into renewable contracts for the payment of reasonable and customary costs for operation and maintenance of the Newlands Project associated with the delivery of water acquired by the Secretary to benefit the Lahontan Valley wetlands. The contracts shall be for a term not exceeding 40 years. Any such contract shall provide that upon the failure of the Secretary to pay such charges, the United States shall be liable for their payment and other costs provided for in applicable provisions of the contract, subject to the availability of appropriations.

(4) Consistent with fulfillment of this subsection and not as a precondition thereto, the Secretary shall study and report on the social, economic, and environmental effects of the water rights purchase program authorized by this subsection and the water management measures authorized by subsection 206(c). This study may be conducted in coordination with the studies authorized by paragraph 207(c)(5) and subsection 209(c) of this title, and shall be reported to the Committees on Energy and Natural Resources, Environment and Public Works, and Appropriations of the Senate, and the Committees on Interior and Insular Affairs, Merchant Marine and Fisheries, and Appropriations of the House of Representatives not later than three years after the date of enactment of this Act.

(b) EXPANSION OF STILLWATER NATIONAL WILDLIFE REFUGE.—

(1) Notwithstanding any other provision of law, the Secretary shall manage approximately 77,520 acres of Federal land in the State of Nevada, as depicted upon a map entitled "Stillwater National Wildlife Refuge," dated July 16, 1990, and available for inspection in appropriate offices of the United States Fish and Wildlife Service, as a unit of the National Wildlife Refuge System.

(2) The lands identified in paragraph (1) of this subsection shall be known as the Stillwater National Wildlife Refuge and shall be managed by the Secretary through the United States Fish and Wildlife Service for the purposes of:

(A) maintaining and restoring natural biological diversity within the refuge;

(B) providing for the conservation and management of fish and wildlife and their habitats within the refuge;

(C) fulfilling the international treaty obligations of the United States with respect to fish and wildlife; and

(D) providing opportunities for scientific research, environmental education, and fish and wildlife *oriented recreation.*

(3) The Secretary shall administer all lands, waters, and interests therein transferred under this title in accordance with the provisions of the National Wildlife Refuge System Administration Act of 1966, as amended, except that any activity provided for under the terms of the 1948 Tripartite Agreement may continue under the terms of that agreement until its expiration date, unless such agreement is otherwise terminated. The Secretary may utilize such additional statutory authority as may be available to the Secretary for the conservation and development of wildlife and natural resources, interpretive education, and outdoor recreation as the Secretary deems appropriate to carry out the purposes of this title.

(4) The Secretary is authorized to take such actions as may be necessary to prevent, correct, or mitigate for adverse water quality and fish and wildlife habitat conditions attributable to agricultural drain water originating from lands irrigated by the Newlands Project, except that nothing in this subsection shall be construed to preclude the use of the lands referred to in paragraph (1) of this subsection for Newlands Project drainage purposes. Such actions, if taken with respect to drains located on the Fallon Indian Reservation, shall be taken after consultation with the Fallon Tribe.

(5) Not later than November 26, 1997, after consultation with the State of Nevada and affected local

interests, the Secretary shall submit to the Congress recommendations, if any, concerning:

(A) revisions in the boundaries of the Stillwater National Wildlife Refuge as may be appropriate to carry out the purposes of the Stillwater National Wildlife Refuge, and the provisions of subsection 206(a) of this section;

(B) transfer of any other United States Bureau of Reclamation withdrawn public lands within existing wildlife use areas in the Lahontan Valley to the United States Fish and Wildlife Service for addition to the National Wildlife Refuge System; and

(C) identification of those lands currently under the jurisdiction of the United States Fish and Wildlife Service in the Lahontan Valley that no longer warrant continued status as units of the National Wildlife Refuge System, with recommendations for their disposition.

* * * *

SEC. 207. CUI-UI AND LAHONTAN CUTTHROAT TROUT RECOVERY AND ENHANCEMENT PROGRAM.

(a) RECOVERY PLANS.—

Pursuant to the Endangered Species Act, as amended, the Secretary shall expeditiously revise, update, and implement plans for the conservation and recovery of the cui-ui and Lahontan cutthroat trout. Such plans shall be completed and updated from time to time as appropriate in accordance with the Endangered Species Act, as amended, and shall include all relevant measures necessary to conserve and recover the species. Such plans and any amendments and revisions thereto shall take into account and be implemented in a

manner consistent with the allocations of water to the State of Nevada and the State of California made under section 204 of this title, the Preliminary Settlement Agreement as modified by the Ratification Agreement, and the Operating Agreement, if and when those allocations and agreements enter into effect.

(b) TRUCKEE RIVER REHABILITATION.—

(1) The Secretary of the Army, in consultation with and with the assistance of the Pyramid Lake Tribe, State of Nevada, Environmental Protection Agency, the Secretary, and other interested parties, is authorized and directed to incorporate into its ongoing reconnaissance level study of the Truckee River, a study of the rehabilitation of the lower Truckee River to and including the river terminus delta at Pyramid Lake, for the benefit of the Pyramid Lake fishery. Such study shall analyze, among other relevant factors, the feasibility of:

(A) restoring riparian habitat and vegetative cover;

(B) stabilizing the course of the Truckee River to minimize erosion;

(C) improving spawning and migratory habitat for the cui-ui;

(D) improving spawning and migratory habitat for the Lahontan cutthroat trout; and

(E) improving or replacing existing facilities, or creating new facilities, to enable the efficient passage of cui-ui and Lahontan cutthroat trout through or around the delta at the mouth of the Truckee River, and to upstream reaches above Derby Dam, to obtain access to upstream spawning habitat.

(2) There are authorized to be appropriated to the Secretary of the Army such funds as are necessary to

supplement the ongoing reconnaissance level study, referenced in paragraph (1), to address and report on the activities and facilities described in that paragraph.

(c) ACQUISITION OF WATER RIGHTS.—

(1) The Secretary is authorized to acquire water and water rights, with or without the lands to which such rights are appurtenant, and to transfer, hold, and exercise such water and water rights and related interests to assist the conservation and recovery of the Pyramid Lake fishery in accordance with the provisions of this subsection. Water rights acquired under this subsection shall be exercised in a manner consistent with the Operating Agreement and the Preliminary Settlement Agreement as modified by the Ratification Agreement and, to the maximum extent practicable, used for the benefit of the Pyramid Lake fishery and shall not be sold, exchanged, or otherwise disposed of except to the benefit of the Pyramid Lake fishery.

(2) Acquisition of water rights and related interests pursuant to this subsection shall be subject to the following conditions:

(A) water rights acquired must satisfy eligibility criteria adopted by the Secretary;

(B) water right purchases shall be only from willing sellers, but the Secretary may target purchases in areas deemed by the Secretary to be most beneficial to such a purchase program;

(C) prior to acquiring any water or water rights in the State of California for the Pyramid Lake fishery, the Secretary shall first consult with the Governor of California and prepare a record of decision on the basis of such consultation;

(D) all water rights shall be transferred in accordance with any applicable State law; and

(E) water rights acquired by the Secretary shall be managed by the Secretary in consultation with the Pyramid Lake Tribe and affected interests.

(3) Nothing in this subsection shall be construed as limiting or affecting the authority of the Secretary to acquire water and water rights under other applicable laws.

(4) The Secretary is authorized to reimburse non-Federal entities for reasonable and customary costs for operation and maintenance of the Newlands Project associated with the delivery of water in carrying out the provisions of this subsection.

(5) Consistent with fulfillment of this section and not as a precondition thereto, the Secretary shall study and report on the social, economic, and environmental effects of the water rights purchase program authorized by this section. This study may be conducted in coordination with the studies authorized by paragraph 206(a)(4) and subsection 209(c) of this title, and shall be reported to the Committees on Energy and Natural Resources, Environment and Public Works, and Appropriations of the Senate, and the Committees on Interior and Insular Affairs, Merchant Marine and Fisheries, and Appropriations of the House of Representatives not later than three years after the date of enactment of this title.

(d) USE OF STAMPEDE AND PROSSER RESERVOIRS.—

(1) The rights of the United States to store water in Stampede Reservoir shall be used by the Secretary for the conservation of the Pyramid Lake fishery, except that such use must be consistent with the Preliminary Settlement Agreement as modified by the Ratification Agreement, the Operating Agreement, and the mitigation agreement specified in subparagraph 205(a)(1)(C) of this title.

(2) The rights of the United States to store water in Prosser Creek Reservoir shall be used by the Secretary as may be required to restore and maintain the Pyramid Lake fishery pursuant to the Endangered Species Act, as amended, except that such use must be consistent with the Tahoe-Prosser Exchange Agreement, the Preliminary Settlement Agreement as modified by the Ratification Agreement, the Operating Agreement, and the mitigation agreement specified in subparagraph 205(a)(1)(C) of this title.

(3) Nothing in this subsection shall prevent exchanges of such water or the use of the water stored in or released from these reservoirs for coordinated non-consumptive purposes, including recreation, instream beneficial uses, and generation of hydro-electric power. Subject to the Secretary's obligations to use water for the Pyramid Lake fishery, the Secretary is authorized to use storage capacity in the Truckee River reservoirs, including Stampede and Prosser Creek reservoirs, for storage of non-project water, including, but not limited to, storage of California's Truckee River basin surface water allocation, through negotiation of appropriate provisions for storage of such water in the Operating Agreement. To the extent it is not necessary for the Pyramid Lake fishery, the Secretary may allow Truckee River reservoir capacity dedicated to Washoe Project water to be used for exchanges of water or water rights, and to enable conjunctive use. In carrying out the provisions of this subsection, the Secretary shall comply with all applicable provisions of State law.

(e) OFFSETTING FLOWS.—

Additional flows in the Truckee River and to Pyramid Lake resulting from the implementation of subsection 206(c) of this title are intended to offset any reductions in those flows which may be attributable to the allocations to California or

Nevada under section 204 of this title or to the waivers in sections 3 and 21 of article II of the Preliminary Settlement Agreement as modified by the Ratification Agreement.

* * * *

SEC. 209. NEWLANDS PROJECT IMPROVEMENT.

(a) EXPANSION OF AUTHORIZED PURPOSES.—

(1) In addition to the existing irrigation purpose of the Newlands Reclamation Project, the Secretary is authorized to operate and maintain the project for the purposes of:

(A) fish and wildlife, including endangered and threatened species;

(B) municipal and industrial water supply in Lyon and Churchill counties, Nevada, including the Fallon Indian Reservation;

(C) recreation;

(D) water quality; and

(E) any other purposes recognized as beneficial under the law of the State of Nevada.

(2) Additional uses of the Newlands Project made pursuant to this section shall have valid water rights and, if transferred, shall be transferred in accordance with State law.

(b) TRUCKEE RIVER DIVERSIONS.—

The Secretary shall not implement any provision of this title in a manner that would:

(1) increase diversions of Truckee River water to the Newlands Project over those allowed under applicable operating criteria and procedures; or

(2) conflict with applicable court decrees.

(c) PROJECT EFFICIENCY STUDY.—

(1) The Secretary shall study the feasibility of improving the conveyance efficiency of Newlands Project facilities to the extent that, within twelve years after the date of enactment of this title, on average not less than seventy-five percent of actual diversions under applicable operating criteria and procedures shall be delivered to satisfy the exercise of water rights within the Newlands Project for authorized project purposes.

(2) The Secretary shall consider the effects of the measures required to achieve such efficiency on groundwater resources and wetlands in the Newlands Project area. The Secretary shall report the results of such study to the Committees on Energy and Natural Resources, Environment and Public Works, and Appropriations of the Senate and the Committees on Interior and Insular Affairs, Merchant Marine and Fisheries, and Appropriations of the House of Representatives not later than three years after the date of enactment of this title.

(d) WATER BANK.—

The Secretary, in consultation with the State of Nevada and the operator of the Newlands Project, is authorized to use and enter into agreements to allow water right holders to use Newlands Project facilities in Nevada, where such facilities are not otherwise committed or required to fulfill project purposes or other Federal obligations, for supplying carryover storage of irrigation and other water for drought protection and other purposes, consistent with subsections (a) and (b) of this section. The use of such water shall be consistent with and subject to applicable State laws.

(e) RECREATION STUDY.—

The Secretary, in consultation with the State of Nevada, is authorized to conduct a study to identify administrative, operational, and structural measures to benefit recreational

use of Lahontan Reservoir and the Carson River downstream of Lahontan Dam. Such study shall be reported to the Committee on Energy and Natural Resources of the Senate and the Committee on Interior and Insular Affairs of the House of Representatives.

(f) EFFLUENT REUSE STUDY.—

The Secretary, in cooperation with the Administrator of the Environmental Protection Agency, the State of Nevada, and appropriate local entities, shall study the feasibility of reusing municipal wastewater for the purpose of wetland improvement or creation, or other beneficial purposes, in the areas of Fernley, Nevada, the former Lake Winnemucca National Wildlife Refuge, and the Lahontan Valley. The Secretary shall coordinate such studies with other efforts underway to manage wastewater from the Reno and Sparks, Nevada, area and to improve Truckee River and Pyramid Lake water quality. Such study shall be reported to the Committees on Energy and Natural Resources, Environment and Public Works, and Appropriations of the Senate and the Committees on Interior and Insular Affairs, Merchant Marine and Fisheries, and Appropriations of the House of Representatives.

(g) REPAYMENT CANCELLATION.—

Notwithstanding any other provision of law, the Secretary may cancel all repayment obligations owing to the Bureau of Reclamation by the Truckee-Carson Irrigation District. As a precondition for the Secretary to cancel such obligations, the Truckee-Carson Irrigation District shall agree to collect all such repayment obligations and use such funds for water conservation measures. For the purpose of this subsection and paragraph 209(h)(2), the term "water conservation measures" shall not include repair, modification, or replacement of Derby Dam.

(h) SETTLEMENT OF CLAIMS.—

(1) The provisions of subsections 209(d), (e), (f), and (g) of this section shall not become effective unless and until the Truckee-Carson Irrigation District has entered into a settlement agreement with the Secretary concerning claims for recoupment of water diverted in excess of the amounts permitted by applicable operating criteria and procedures.

(2) The provisions of subsection 209(g) of this section shall not become effective unless and until the State of Nevada provides not less than $4,000,000 for use in implementing water conservation measures pursuant to the settlement described in paragraph (1) of this subsection.

(3) The Secretary is authorized to expend such sums as may be required to match equally the sums provided by the State of Nevada under paragraph (2) of this subsection. Such sums shall be available for use only in implementing water conservation measures pursuant to the settlement described in paragraph (1) of this subsection.

(i) FISH AND WILDLIFE.—

The Secretary shall, insofar as is consistent with project irrigation purposes and applicable operating criteria and procedures, manage existing Newlands Project re-regulatory reservoirs for the purpose of fish and wildlife.

(j) OPERATING CRITERIA AND PROCEDURES.—

(1) In carrying out the provisions of this title, the Secretary shall act in a manner that is fully consistent with the decision in the case of *Pyramid Lake Paiute Tribe of Indians v. Morton*, 354 F. Supp. 252 (D. D.C. 1973).

(2) Notwithstanding any other provision of law, the operating criteria and procedures for the Newlands Reclamation Project adopted by the Secretary on April 15, 1988 shall remain in effect at least through December 31, 1997, unless the Secretary decides, in his sole discretion, that changes are necessary to comply with his obligations, including those under the Endangered Species Act, as amended. Prior to December 31, 1997, no court or administrative tribunal shall have jurisdiction to set aside any of such operating criteria and procedures or to order or direct that they be changed in any way. All actions taken heretofore by the Secretary under any operating criteria and procedures are hereby declared to be valid and shall not be subject to review in any judicial or administrative proceeding, except as set forth in paragraph (3) of this subsection.

(3) The Secretary shall henceforth ensure compliance with all of the provisions of the operating criteria and procedures referenced in paragraph (2) of this subsection or any applicable provision of any other operating criteria or procedures for the Newlands Project previously adopted by the Secretary, and shall, pursuant to subsection 709(h) or judicial proceeding, pursue recoupment of any water diverted from the Truckee River in excess of the amounts permitted by any such operating criteria and procedures. The Secretary shall have exclusive authority and responsibility to pursue such recoupment, except that, if an agreement or order leading to such recoupment is not in effect as of December 31, 1997, any party with standing to pursue such recoupment prior to enactment of this title may pursue such recoupment thereafter. Any agreement or court order between the Secretary and other parties concerning recoupment of Truckee River water diverted in violation of applicable operating criteria and pro-

cedures shall be consistent with the requirements of this subsection and the Endangered Species Act, as amended, and shall be submitted for the review and approval of the court exercising jurisdiction over the operating criteria and procedures for the Newlands Project. All interested parties may participate in such review. In any recoupment action brought by any party, other than the Secretary, after December 31, 1997, the only relief available from any court of the United States will be the issuance of a declaratory judgment and injunctive relief directing any unlawful user of water to restore the amount of water unlawfully diverted. In no event shall a court enter any order in such a proceeding that will result in the expenditure of any funds out of the United States Treasury.

* * * *

SEC. 210. MISCELLANEOUS PROVISIONS.

* * * *

(b) GENERAL PROVISIONS.—

(1) Subject to the provisions of paragraphs (2) and (3) of this subsection, and to all existing property rights or interests, all of the trust land within the exterior boundaries of the Pyramid Lake Indian Reservation shall be permanently held by the United States for the sole use and benefit of the Pyramid Lake Tribe.

(2) Anaho Island in its entirety is hereby recognized as part of the Pyramid Lake Indian Reservation. In recognition of the consent of the Pyramid Lake Tribe evidenced by Resolution No. 19-90 of the Pyramid Lake Paiute Tribal Council, all of Anaho Island shall hereafter be managed and administered by and under the primary jurisdiction of the United States Fish and Wildlife Service as an integral component of the National Wildlife Refuge System for the benefit and protection of

colonial nesting species and other migratory birds. Anaho Island National Wildlife Refuge shall be managed by the United States Fish and Wildlife Service in accord with the National Wildlife Refuge System Administration Act, as amended, and other applicable provisions of Federal law. Consistent with the National Wildlife Refuge System Administration Act, as amended, the Director of the United States Fish and Wildlife Service is authorized to enter into cooperative agreements with the Pyramid Lake Tribe regarding Anaho Island National Wildlife Refuge.

(3) Subject to the relinquishment by the legislature of the State of Nevada of any claim the State of Nevada may have to ownership of the beds and banks of the Truckee River within the exterior boundaries of the Pyramid Lake Indian Reservation and of Pyramid Lake, those beds and banks are recognized as part of the Pyramid lake Indian Reservation and as being held by the United States in trust for the sole use and benefit of the Pyramid Lake Tribe. Nothing in this subsection shall be deemed to recognize any right, title, or interest of the State of Nevada in those beds and banks which it would not otherwise have. No other provision of this title shall be contingent on the effectiveness of this subsection.

(4) Except as provided in paragraphs (2) and (9) of this subsection, the Pyramid Lake Tribe shall have the sole and exclusive authority to establish rules and regulations governing hunting, fishing, boating, and all forms of water based recreation on all lands within the Pyramid Lake Indian Reservation except fee-patented land, provided that the regulation of such activities on fee-patented land within the Pyramid Lake Indian Reservation shall not be affected by this paragraph. Nothing in this paragraph shall be deemed to recognize or confer

any criminal jurisdiction on the Pyramid Lake Tribe or to affect any regulatory jurisdiction of the State of Nevada with respect to any other matters.

(5) The consent of the United States is given to the negotiation and execution of an intergovernmental agreement between the Pyramid Lake Tribe and the State of Nevada, which agreement may also include Washoe County, Nevada, providing for the enforcement by the State of Nevada and Washoe County of the rules and regulations referred to in paragraph (4) adopted by the Pyramid Lake Tribe governing hunting, fishing, boating, and all forms of water based recreation against non-members of the Pyramid Lake Tribe and for State courts or other forums of the State of Nevada or its political subdivisions to exercise civil and criminal jurisdiction over violations of the Pyramid Lake Tribe's rules and regulations allegedly committed by such non-members, except as provided by paragraphs (2) and (9) of this subsection.

(6) The consent of the United States is given to the negotiation and execution of an intergovernmental agreement between the Pyramid Lake Tribe and the State of Nevada, which agreement may also include Washoe County, Nevada, providing for the enforcement of rules and regulations governing hunting, fishing, boating and all forms of water based recreation on fee-patented land within the Pyramid Lake Indian Reservation, except as provided by paragraphs (2) and (9) of this subsection.

(7) Nothing in this title shall limit or diminish the Federal Government's trust responsibility to any Indian Tribe, except that this provision shall not be interpreted to impose any liability on the United States or its agencies for any damages resulting from actions taken

by the Pyramid Lake Paiute Tribe as to which the United States is not a party or with respect to which the United States has no supervisor responsibility.

(8) Subject to the terms, conditions, an contingencies of and relating to the Preliminary Settlement Agreement as modified by the Ratification Agreement, the United States on its own behalf and in its capacity as trustee to the Pyramid Lake Tribe confirms and ratifies the waivers of any right to object to the use and implementation of the water supply measures described in sections 3 and 21 of article II of the Preliminary Settlement Agreement as modified by the Ratification Agreement, and any waivers of sovereign immunity given in connection with that agreement or the Operating Agreement, upon the entry into effect of the Preliminary Settlement Agreement as modified by the Ratification Agreement.

(9) Nothing in this title shall be construed as waiving or altering the requirements of any Federal environmental or wildlife conservation law, including, but not limited to, the Endangered Species Act, as amended, including the consultation and reinitiation of consultation responsibilities of the Secretary under section 7 of the Act, and the National Environmental Policy Act of 1969.

(10) Nothing in this title shall be construed to create an express or implied Federal reserved water right.

(11) Nothing in this title shall subject the United States or any of its agencies or instrumentalities or any Indian Tribe to any State jurisdiction or regulation to which they would not otherwise be subject.

(12) Nothing in this title is intended to abrogate the jurisdiction of or required approvals by the Nevada State Engineer or the California State Water Resources Control Board.

(13) Nothing in this title is intended to affect the power of the Orr Ditch court or the Alpine court to ensure that the owners of vested and perfected Truckee River water rights receive the amount of water to which they are entitled under the Orr Ditch decree or the Alpine decree. Nothing in this title is intended to alter or conflict with any vested and perfected right of any person or entity to use the water of the Truckee River or its tributaries, including, but not limited to, the rights of landowners within the Newlands Project for delivery of the water of the Truckee River to Derby Dam and for the diversion of such waters at Derby Dam pursuant to the Orr Ditch decree or any applicable law.

(14) No single provision or combination of provisions in this title, including interstate allocations under section 204, or associated agreements which may adversely affect inflows of water to Pyramid Lake shall form the basis for additional claims of water to benefit Pyramid Lake, the Pyramid Lake fishery, or lands within the Pyramid Lake Indian Reservation.

(15) Nothing in this title shall affect any claim of Federal reserved water rights, if any, to the Carson River or its tributaries for the benefit of lands within the Fallon Indian Reservation.

(16) The Secretary, in consultation with the State of Nevada and affected local interests, shall undertake appropriate measures to address significant adverse impacts, identified by studies authorized by this title, on domestic uses of groundwater directly resulting from the water purchases authorized by this title.

(17) It is hereby declared that after August 26, 1935, and prior to the date of enactment of this title, there was no construction within the meaning of section 23(b) of the Federal Power Act, as amended, at the four run-of-

river hydroelectric project works owned by Sierra Pacific Power Company and located on the Truckee River. Notwithstanding any other provision of law, after the date of enactment of this title, development of additional generating capacity at such project works that is accomplished through replacement of turbine generators and increases in effective head shall not constitute construction within the meaning of section 23(b) of the Federal Power Act, as amended: Provided, That such development may not change the location of or increase any existing impoundments and may not require diversions of water in excess of existing water rights for such project works: And provided further, That the diversions of water for the operation of such project works shall be consistent with the Preliminary Settlement Agreement as modified by the Ratification Agreement, and the Operating Agreement. The Secretary shall take into account the monetary value of this provision to the Sierra Pacific Power Company in calculating the storage charge referred to in paragraph 205(a)(6).

(18) The Secretary is authorized, in accordance with this section and applicable provisions of existing law, to exchange surveyed public lands in Nevada for interests in fee patented lands, water rights, or surface rights to lands within or contiguous to the exterior boundaries of the Pyramid Lake Indian Reservation. The values of the lands or interests therein exchanged by the Secretary under this paragraph shall be substantially equal, but the Secretary is authorized to accept monetary payments from the owners of such fee patented lands, water rights, or surface rights as circumstances may require in order to compensate for any difference in value. Any such payments shall be deposited to the Treasury. The value of improvements on land to be exchanged shall be given due consideration and an appropriate allowance shall be

made therefor in the valuation. Title to lands or any interest therein acquired by the Secretary pursuant to this subsection shall be taken in the name of the United States in trust for the Pyramid Lake Tribe and shall be added to the Pyramid Lake Indian Reservation.

(c) APPROPRIATIONS AUTHORIZED.—

There are authorized to be appropriated such sums as may be required to implement the provisions of this title.

Approved November 16, 1990.

APPENDIX E

TITLE 42
THE PUBLIC HEALTH AND WELFARE

CHAPTER 55
NATIONAL ENVIRONMENTAL POLICY

* * *

SUBCHAPTER I

POLICIES AND GOALS

42 USCS § 4332 (2002)

Section 4332. Cooperation of agencies; reports; availability of information; recommendations; international and national coordination of efforts.

The Congress authorizes and directs that, to the fullest extent possible: (1) the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth in this chapter, and (2) all agencies of the Federal Government shall—

(A) utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision-making which may have an impact on man's environment;

(B) identify and develop methods and procedures, in consultation with the Council on Environmental Quality established by subchapter II of this chapter, which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision-making along with economic and technical considerations;

(C) include in every recommendation or report on proposals for legislation and other major Federal actions

significantly affecting the quality of the human environment, a detailed statement by the responsible official on—

(i) the environmental impact of the proposed action,

(ii) any adverse environmental effects which cannot be avoided should the proposal be implemented,

(iii) alternatives to the proposed action,

(iv) the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

(v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

Prior to making any detailed statement, the responsible Federal official shall consult with and obtain the comments of any Federal agency which has jurisdiction by law or special expertise with respect to any environmental impact involved. Copies of such statement and the comments and views of the appropriate Federal, State, and local agencies, which are authorized to develop and enforce environmental standards, shall be made available to the President, the Council on Environmental Quality and to the public as provided by section 552 of title 5, United States Code, and shall accompany the proposal through the existing agency review processes;

(D) Any detailed statement required under subparagraph (C) after January 1, 1970, for any major Federal action funded under a program of grants to States shall not be deemed to be legally insufficient solely by reason of having been prepared by a State agency or official, if:

(i) the State agency or official has statewide jurisdiction and has the responsibility for such action,

(ii) the responsible Federal official furnishes guidance and participates in such preparation,

(iii) the responsible Federal official independently evaluates such statement prior to its approval and adoptic and

(iv) after January 1, 1976, the responsible Federal official provides early notification to, and solicits the views of, any other State or any Federal land management entity of any action or any alternative thereto which may have significant impacts upon such State or affected Federal land management entity and, if there is any disagreement on such impacts, prepares a written assessment of such impacts and views for incorporation into such detailed statement.

The procedures in this subparagraph shall not relieve the Federal official of his responsibilities for the scope, objectivity, and content of the entire statement or of any other responsibility under this Act; and further, this subparagraph does not affect the legal sufficiency of statements prepared by State agencies with less than statewide jurisdiction.[;]

(E) study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resouces;

(F) recognize the worldwide and long-range character of environmental problems and, where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind's world environment;

(G) make available to States, counties, municipalities, institutions, and individuals, advice and information use-

ful in restoring, maintaining, and enhancing the quality of the environment;

(H) initiate and utilize ecological information in the planning and development of resource-oriented projects; and

(I) assist the Council on Environmental Quality established by subchapter II of this chapter.

APPENDIX F

TITLE 40
PROTECTION OF ENVIRONMENT

CHAPTER V
COUNCIL ON ENVIRONMENTAL QUALITY

PART 1508
TERMINOLOGY AND INDEX

Section 1508.7 Cumulative impact.

Cumulative impact is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Section 1508.25 Scope.

Scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (Secs.1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include:

(a) Actions (other than unconnected single actions) which may be:

(1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they:

(i) Automatically trigger other actions which may require environmental impact statements.

(ii) Cannot or will not proceed unless other actions are taken previously or simultaneously.

(iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

(3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement.

(b) Alternatives, which include:

(1) No action alternative.

(2) Other reasonable courses of actions.

(3) Mitigation measures (not in the proposed action).

(c) Impacts, which may be: (1) Direct; (2) indirect; (3) cumulative.

APPENDIX G

Calendar No. SENATE

101st CONGRESS
2d SESSION

REPORT
NO. 101-618

To provide for the settlement of water rights claims of the Fallon Paiute-Shoshone Indian Tribes and for other purposes.

October 24 (legislative day,), 1990 —Ordered to be printed

Select
Mr. INOUYE, from the Committee on

Indian Affairs, submitted the following

REPORT

[To accompany S. 3084]

Select
The Committee on Indian Affairs,

to which was referred the bill (S. 3084)
~~joint resolution~~

to provide for the settlement of water rights claims of the Fallon Paiute-Shoshone Indian Tribes and for other purposes,

having considered the same, reports favorably thereon with ~~out~~ an amendment ( ) in the nature of a substitute and recommends that the bill (as amended) do pass.
~~joint resolution~~

TITLE II—TRUCKEE-CARSON-PYRAMID LAW WATER SETTLEMENT

BACKGROUND AND PURPOSE

* * *

3. Truckee River Water Use

* * *

C. Truckee river Water Rights

* * *

iii. Reserved Rights for Pyramid Lake

In 1973, the United States, subsequently joined by the Pyramid Lake Paiute Tribe, brought suit against all persons claiming water rights to the Truckee River and its tributaries in Nevada. The suit sought additional water from the Truckee for the purpose of preserving Pyramid Lake and its fisheries. The Government and Tribe argued that the Orr Ditch decree only quantified the Pyramid Lake Reservation's right to water for agricultural purposes. In 1953, the United States Supreme Court rejected that claim. Nevada v. United States, 463 U.S. 110 (1983). In a unanimous opinion, the Court held that the jurisprudential doctrine of res judicata barred the United States and the Tribe from litigating the r reserved right claim against :hose parties who had relied on the Orr Ditch decree.

In a concurring opinion, Justice Brennan noted that the District Court had found that one of the purposes for establishment of the Pyramid Lake Reservation was "to provide the Indians with access to Pyramid Lake . . . in order that they might obtain their sustenance, at least in part, from these historic fisheries." Justice Brennan explained that:

> As a consequence, the Tribe retains a Winters right, at least in theory, to water to maintain the fishery, a right which today's ruling does not question. To some extent it may be possible to satisfy the Tribe's claims consistent with the Orr Ditch decree—for instance, through

> judicious management of the Derby Dam and Lahontan Reservoir. improvement of the quality of the Newlands Project Irrigation works, application of heretofore unappropriated floodwaters. or invocation of the decree's provisions for restricting diversions in excess of those allowed by the decree

Nevada v. United States, 463 U.S. at 145.

In 1975, the Pyramid Lake Tribe received a payment of 58.5 million in connection with the Tribe's claim against the United States for failure to assert a claim for water rights for the Pyramid Lake fishery.

The Committee observes that enactment of this title and, indeed, years of discord and litigation involving users of the Truckee River probably could have been avoided had the United States pursued and secured water rights needed to sustain the Pyramid Lake Fishery. In retrospect, it is clear that the limited benefits for the Truckee river were promised by the United States to too many interests.

APPENDIX H

Final Environmental Impact Statement

Water Rights Acquisition

for Lahontan Valley Wetlands

Churchill County, Nevada

Volume 1

U.S. Department of the Interior
Fish and Wildlife Service
Region 1, Portland, Oregon
September 1996

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* * * *

Under baseline conditions, the BLR Model calculates that, over the long run, an *average of about 250,700 AF/year would be released to meet irrigation demand and an average of about 51,100 AF/year would be lost to reservoir evaporation and seepage.* BLR Model calculated average annual outflow is the sum of releases and losses and does not include spills that occur irregularly in high water years. Spills are shown in Table 3.2.C, but are not incorporated into the outflow calculations. For comparison, actual annual average Lahontan Reservoir outflow (including releases and spills) from 1912-92 was 380,852 AF/year according to water-resources data (USGS, 1994).

Truckee River

Truckee River flows are controlled by several upstream reservoir operations, including Boca, Donner, Lake Tahoe, Stampede, and Prosser Reservoirs. Actual stream gage records (USGS, Water Resources Data, Nevada, 1992) for the Truckee River at Clark, Nevada, (above Derby Dam), show a

20-year (1972-92) annual average of 580,700 AF. Using the hydrologic data from the 92-year simulation period with the NSM and the BLR Model, baseline river flow conditions above Derby Dam are calculated to average about 546,100 AF/year. Under baseline conditions, Truckee Canal diversions to the Carson Division of the Newlands Project are calculated to average 102,200 AF/year over the long term.

Most of the Truckee River flow downstream of Derby Dam ends up in Pyramid Lake. Some river flow is diverted for small agricultural operations adjacent to the river, which subsequently generates irrigation return flow to the river. In order for the Service to apply a consistent baseline, the NSM and BLR Model again used the 92-year hydrologic simulation period, 1989 Newlands Project demand, and 1988 OCAP to calculate a long-term annual average Truckee River inflow of 448,800 AF to Pyramid Lake.

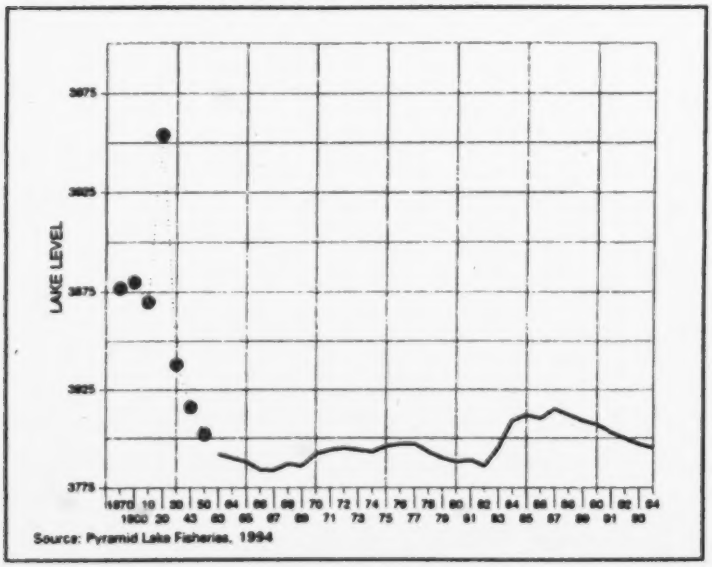
Actual flow records of the Truckee River at Nixon, Nevada (near the inlet to Pyramid Lake) average 363,000 AF for the 1958-93 period of record (USGS, Water Resources Data, Nevada, 1993). Implementation of the 1988 OCAP and curtailment of Newlands Project winter power generation (1967) have reduced Truckee River diversions, thereby increasing flows in the lower Truckee River. Although actual data do not fully reflect the magnitude of this increase, use of the NSM and BLR Model allows the Service to calculate a long-term average based on the 92-year simulation period.

Pyramid Lake is the terminus of the Truckee River and in the earlier years of record (1880-1910) the lake level remained relatively stable, as Truckee River inflow and evaporation were roughly in balance (California, Dept. of Water Resources, 1991 b). Lake records show it peaked at 3,887 feet above sea level in 1870 (Wagner, personal communication, 1994), and began to decline around 1910 (Figure 3.3.A) due to increased upstream diversions and Newlands Project operations which diverted an average of

239,700 AF/year from the Truckee River between 1910 and 1966 (Federal Water Master's Gaging Station, Sierra Hydrotech data, 1980). In 1967, operating criteria for the Newlands Project curtailed winter power generation, thereby reducing Truckee River diversions. In the 1980s, changes in Newlands Project operations and several years of record runoff from the Sierras, brought Pyramid Lake levels up 30 feet from the lowest recorded elevation of 3,784 feet in 1967. Most recently, lake levels again dropped due to a 9-year drought, and in 1994, Pyramid Lake dropped to the 3,795-foot-elevation mark (Wagner, personal communication, Pyramid Lake Fisheries Data, 1994). The NSM and BLR Model calculations project that over the long-term, Pyramid Lake levels would stabilize at an elevation of about 3,830 feet under baseline conditions.

FIGURE 3.3.A PYRAMID LAKE ELEVATIONS

FIGURE 3.3.A PYRAMID LAKE ELEVATIONS



Carson River

Carson River records (USGS, Water Resources Data, Nevada, 1992) in the Lahontan Valley since 1912 show an annual average flow volume of 263,200 AF (measured at Fort Churchill Gaging Station). Flows varied widely during this period of record, with a high average annual inflow of 804,300 AF (1983 water year) and a low average annual inflow of 26,300 AF (1977 water year). Prior to the 1860s, the average annual Carson River flow into Lahontan Valley was estimated at about 410,000 AF (Kerley and others, 1993). The BLR Model applies the 92-year simulation period to calculate long-term average Carson River flows into Lahontan Valley (at Fort Churchill Gaging Station) to be about 287,700 AF/year.

Carson River flows downstream of Lahontan Reservoir comprise releases from Lahontan Reservoir that usually include diversions from the Truckee River. The actual average annual Carson River flow below the reservoir was 375,100 AF/year for water years 1966-92 (Maurer and others, 1994). This figure represents a short period of record in which three voluminous spills occurred.

Lahontan Reservoir releases are linked to headgate demand and delivery efficiency. Lahontan Reservoir releases fall below average or baseline conditions if there is insufficient storage to meet the headgate demand or if the baseline irrigation demand (headgate demand) is reduced. Using the BLR Model, the Service analyzed various project conditions to predict variations in reservoir releases based on the 92-year hydrologic simulation period.

Under baseline conditions, the BLR Model calculates that a long-term annual average of 250,700 AF/year will be released from the Lahontan Reservoir for irrigation, with additional releases of 49,900 AF/year through drawdown or spills (Table 3.3.A). The long-term average baseline flow below

Lahontan Reservoir is calculated to total about 300,000 AF/year. This baseline figure is lower than the actual average cited above (1966-92) because it incorporates full achievement of the Newlands Project delivery efficiency targets and a lower irrigation demand associated with the transfer of 20,000 AF of water rights to wetlands use.

Other water use analyses, for example the USES report by Maurer and others (1994) or Reclamation's OCAP EIS (1987), calculate different annual average reservoir releases and spills. The information from these reports is shown in Table 3.3.A to provide a sense of how reservoir release and spill data could vary when a higher irrigated acreage base is used (Reclamation's OCAP EIS, 1987), or how releases could vary if the Newlands Project operated without the 1988 OCAP restrictions (Maurer and others, 1994).

TABLE 3.3.A RANGE OF LAHONTAN RESERVOIR RELEASES COMPARING VARIOUS DATA SETS

	Representative Estimate w/o OCAP [1]
Releases for Irrigation	340,000 AF/yr
Drawdown/Spills	30,000 AF/yr
Total Release	370,000 AF/yr

Assumed Average Under 1988 OCAP [2]	BLR Model Baseline Conditions [3]
280,200 AF/yr	250,700 AF/yr
40,500 AF/yr	49,900 AF/yr
320,700 AF/yr	300,600 AF/yr

Sources: 1) Maurer and others, 1994
2) Based on Record of Decision, OCAP Final EIS Assumption Set (U.S. Bureau of Reclamation, 1987) and BLR Model, 1994
3) BLR Model, 1994

Surface water released from Lahontan Reservoir for irrigation is distributed through the Carson Division by 381 miles of canals and laterals. Currently, the Carson River channel in Lahontan Valley is used to convey irrigation water, drainflows, and spills. The natural hydrologic cycle of the river flow below Lahontan Dam is completely altered and is now a function of Newlands Project operations. The present-day hydrology of the Lahontan Valley is dominated by the effects of 80 years of surface water irrigation (Maurer and others, 1994).

Routing of surface water in the distribution system is complex, changing almost daily during the irrigation season, and from year-to-year to meet both short-term and long-term irrigation demands (Maurer and others, 1994). The TCID Water Master is responsible for scheduling Newlands Project irrigation deliveries.

Surface water resources in Lahontan Valley are subject to the high evaporative loss rates of the desert climate. Lahontan Reservoir, regulating reservoirs, and the primary wetland areas show evaporative losses of 60 or more inches per year (Service field notes, 1993-94). The long-term average (1940-

90) evaporative loss rate for Fallon is 52.57 inches/year (Newlands Agriculture Research Station). Evaporation rates in wetland areas, differ from readings in town and are generally 5 to 30 percent higher in May, June, and July based on the preliminary data collected by the Service at Stillwater NWR and Carson Lake. (See Appendix 4, Wetland Water Requirements and Evaporative Rates.) One explanation for these higher evaporation rates is that the primary wetlands are adjacent to, and downwind of, large expanses of dry, sparsely vegetated, desert land. The hot, dry winds from these areas may increase evaporation rates above those recorded at the Agriculture Station monitoring site, which is adjacent to irrigated farm fields.

* * * *

Mitigation Measures

Maintaining Newlands Project losses (i.e., keeping Newlands Project irrigation delivery efficiency rates at their current levels), including canal seepage and on-farm losses, would act to mitigate the impacts associated with reduced total potential recharge volumes that could potentially result from the Proposed Action and other action alternatives. By increasing Lahontan Reservoir releases, and eliminating OCAP irrigation delivery efficiency targets, a condition would result in which conveyance losses could be maintained at levels comparable to baseline conditions. As a result of such mitigation, total potential recharge volumes for Lahontan Valley aquifers would not be affected by the Service's actions. However, the Service considers this mitigation neither reasonable nor feasible because it fails to comply with the Service's obligations to comply with the 1988 OCAP, various court decrees, and the Endangered Species Act (as it would probably increase Truckee River diversions over existing conditions, which would adversely

impact Pyramid Lake fish species). These obligations are set forth in Public Law 101-618, relative to the Service's actions for wetlands protection.

Another measure that could be used to mitigate any adverse impacts to groundwater recharge would be to convey acquired water to the primary wetlands using the Carson River channel. Another potential mitigation measure to consider for protecting existing recharge pathways would be to restrict or prohibit water right acquisitions in the areas in Lahontan Valley where the shallow and intermediate aquifers are recharged by on-farm losses, especially in areas where there is evidence that basalt aquifer is recharged by shallow and intermediate aquifers; i.e., immediately above the basalt aquifer. Figure 3.3.F depicts the general area in Lahontan Valley where there is potential for downward flow from the shallow to the intermediate aquifer. Maintaining on-farm losses in this areas would minimize impacts in this "recharge zone." Protective restrictions or targeting of agricultural lands to keep such lands irrigated to protect this "recharge zone" can be implemented with traditional zoning or could be incorporated into the Service's acquisition strategy. A commitment by the Service to incorporate such targeting in its acquisition strategy may not mitigate impacts to groundwater recharge if no other actions are taken to prevent conversion of irrigated agricultural lands to other land uses. For instance, the loss of agricultural irrigation in the recharge zone due to residential, industrial and commercial development could continue to occur and adversely impact groundwater recharge regardless of the Service's self-imposed acquisition restrictions in the area. Therefore, this mitigation would be ineffective without compatible County zoning restrictions to parallel the Service's own acquisition restrictions. This mitigation cannot be fully implemented by the Service alone, and would require the cooperative involvement of Churchill County.

Please refer to the mitigation section under Section 4.3.3.2 Domestic Supply, below, for additional mitigation measures that pertain directly to potential impacts to domestic water supplies.

* * * *

4.26 CUMULATIVE EFFECTS

The cumulative analysis considers possible impacts to the environment from past, present, and reasonably foreseeable future actions or activities. A number of interacting variables, *identified below, are expected to have cumulative impacts on environmental resources in the study area.*

4.26.1 ACQUISITION OF WATER RIGHTS FOR THE FALLON PAIUTE-SHOSHONE RESER-VATION AGRICULTURAL LANDS

Section 102 of Public Law 101-618, establishes the Fallon Paiute-Shoshone Tribal Settlement Fund and authorizes the expenditure of funds for a number of purposes, including acquisition of lands, water rights, or related interests from willing sellers. *The law states that not more than 2,415.3 acres of land and not more than 8,453.55 AF/year of water rights shall be taken into "Trust" category by the United States for the benefit of the Fallon Tribes. Additional lands and waters could be acquired, but only the amounts and volumes described would be taken into "Trust." The Fallon Tribes have taken no action to implement this provision as of yet.*

Implementation of such a program has the potential to increase the total amount of water rights being acquired from private water-right holders *in* the Carson Division of the Newlands Project and converted to federal ownership or Indian trust. *It is anticipated that the lands taken into trust would be irrigated by the Tribe or Tribal members. The net*

effect of this action, if undertaken, is expected to be the relocation of irrigated land from private ownership to the Fallon Paiute Shoshone reservation.

Water quality in individual drains may change as acquired water rights are transferred from various locations in the Newlands Project and applied to previously un-irrigated lands on the reservation. The concentration of potentially toxic heavy metals in the water of some drains could experience temporary increases as drainwater leaches naturally occurring heavy metals and minerals from the newly-irrigated fields. The concentration of metals in the drainwater would be dependent on the quantity of materials in the newly irrigated soils. Drainwater effluent from new fields would flow into Stillwater NWR and, therefore, could potentially reduce water quality on the refuge for several years. Metals flushed from the soil would accumulate in the refuge. Continued irrigation is expected to flush most of the metals from the soil. The concentration of metals in drainwater from newly irrigated fields is expected to decline to levels more comparable with existing drains within the area in about five to seven years.

Purchase and transfer of up to about 8,453 AF of water rights from the Carson Division to the Fallon Paiute-Shoshone Reservation would result in up to about 2,415 acres of irrigated farmland being taken out of production in the Carson Division. Subsequently, up to 2,415 acres of land in the Fallon Paiute-Shoshone Reservation would be converted from nonirrigated use to irrigated farmland. In effect, the pattern of groundwater recharge from canal losses and on-farm losses would be shifted from areas in the Carson Division to reservation lands. Although the net effect of groundwater recharge may be neutral in terms of volume, there is a potential that seepage losses in laterals and on-farm losses would be slightly reduced in primary recharge zones for the basalt aquifer. The extent to which this would

happen would depend on the locations of water rights purchases in the area of aquifer recharge. Irrigation water that is delivered to Reservation lands would be delivered via canals that pass through primary recharge zones, and in some cases, the distance to headgates may be increased. Recharge of the shallow aquifer could be impacted in some areas.

The transfer of water rights from Newlands Project farmland to tribal farmland would contribute to temporary declines in the amount of farmland habitat and artificially-created riparian habitat associated with project canals and drains in the Carson Division. However, similar habitats are expected to become established over time on tribal lands. Even though some species may experience a temporary reduction in their numbers, the overall long-term change to the biological diversity in the affected area is expected to be non-detectable.

Because the water right acquisitions under this program would be used to expand agricultural areas of the Fallon Paiute-Shoshone Tribe and Indian allottees on the Reservation, the acquisition of water rights for the Falcon Paiute-Shoshone Tribe would not further reduce the amount of farmland in the Lahontan Valley. However, the amount of privately-owned farmland in the Carson Division could be reduced by as much as 2,415 acres.

It is assumed that water rights acquisition programs for the Fallon Tribes would be based on acquisitions at the market value as determined by past market sales, and there should be no adverse effects to land values. *However, the Service's action of acquiring water rights for wetlands protection could decrease availability of water rights for tribal acquisition, especially since the tribal acquisitions, if they occur, will most likely commence after the Service has implemented its acquisition program.* Privately held water-righted lands sold to the Tribes will be removed from county tax rolls. The

acquisition of water rights for Indian trust, could take as much as 2,415 acres of water-righted land out of private ownership. Using 1993 tax rates and current property values, calculated tax revenue losses would be approximately $2,580-$6,670. *All of the water rights acquired under Public Law 101-618 for the Fallon Tribes may not be transferred from the present place of use.*

4.26.2 CLOSURE OF TJ DRAIN

Section 106 of Public Law 101-618 calls for the closure of TJ Drain in recognition of the water quality problems associated with drainwater originating on Fallon Paiute-Shoshone Tribe Reservation lands. *Waters from the drain* enter the Stillwater NWR wetlands and have *adversely impacted wetlands* water quality in the past.

An inter-agency agreement between the Bureau of Indian Affairs and the Bureau of Reclamation was completed on September 11, 1992. *Under the agreement, Reclamation is responsible for providing technical assistance to the Bureau of Indian Affairs for the planning and closure of the TJ Drain system. The Fallon Tribes and Bureau of Indian Affairs are currently investigating the feasibility of blending TJ agriculture drain water with irrigation water to sprinkler irrigate tribal pastureland for livestock grazing purposes. A closure plan is expected by the fall of 1996.* The Service has indicated a willingness to make acquired lands available to the Fallon Tribes to transfer water rights from Reservation irrigated lands serviced by the TJ Drain onto these off-Reservation lands to eliminate the source of supply to the drain. *This potential strategy is being considered in the development of the TJ Drain closure plan.* If the irrigation use on pertinent Reservation lands is curtailed and relocated to other agricultural areas, this could provide a long term (and possibly permanent) alternative to physical closure or modification of the drain.

Initial actions have been taken to close a portion of the TJ Drain system known as the TJ Stub. The TJ Stub, a non-functional mile-long ditch on the Fallon Paiute-Shoshone Indian Reservation will be backfilled using previously excavated native soil from adjacent spoil banks. Operations to backfill the stub are expected to begin in the summer of 1996. According to an environmental assessment completed in August 1995 (U.S. Bureau of Indian Affairs, 1995), no significant adverse environmental impacts are expected as a result of this action.

Without closure of the drain or modification of the drain's water supply, the Service expects continued water quality problems in the Stillwater NWR wetlands attributable to the TJ Drain water. However, recent observations indicate that water quality in the TJ Drain has improved to the point that fish and other aquatic organisms have returned to waters in the drain. It is not clear whether this improvement is permanent.

Permanent closure of the TJ Drain would eliminate a substantive source of poor quality water entering SJllwater NWR. Water quality conditions in the refuge are expected to improve as a consequence. Improved water quality conditions are expected to enhance the refuge's biological diversity and productivity.

Few, if any, socio-economic impacts are expected to result from the closure of TJ Drain if tribal members elect to transfer water rights off lands near the TJ Drain and on to lands serviced by other drains. The level of agricultural activities in the affected area is expected to remain constant, the only change would be that runoff from those activities would no longer flow to the TJ Drain.

4.26.3 TRUCKEE RIVER OPERATING AGREEMENT (TROA)

Subsection 205(a) of Public Law 101-618 authorizes the Secretary to negotiate an operating agreement for the Truckee River with the states of Nevada and California. The agreement is to provide criteria and procedures for operating Federal and selected private reservoirs on the Truckee River system. Such an agreement must ensure that the reservoirs would be operated to:

(1) satisfy dam safety and flood control requirements,

(2) enhance spawning flows in the lower Truckee River for endangered cui-ui and threatened Lahontan cutthroat trout,

(3) carry out the terms and conditions of the Preliminary Settlement Agreement as modified by the Ratification Agreement, and

(4) exercise water rights in conformance with applicable decrees.

Negotiations began in 1991 to develop a draft operating agreement for the Truckee River. *The Secretary, representatives from Nevada and California, Pyramid Lake Paiute Tribe, Sierra Pacific Power Company*, and other interested parties involved in the operations of Truckee River facilities, are working to complete a draft agreement, *but an agreed-upon text could be a year or more away.* Preparation of a draft EIS assessing the potential environmental effects of a Truckee River Operating Agreement is underway. Completion of a final EIS and Record of Decision are required before *the federal government can implement its TROA-related responsibilities.*

The TROA may allow excess privately owned water; surface waters allocated to the State of California, and the

consumptive use portion of former Orr Ditch agricultural water rights that have been converted to municipal and industrial use, to be exchanged or stored in Federal reservoirs. *As of July 1996, the water management provisions of TROA were still being negotiated and it is premature to speculate on the specific potential impacts the agreement may have on Truckee River flows. Overall, TROA is not expected to adversely impact the Newlands Project because Section 205(a) (2)(D) of Public Law 101-618 states that the agreement will ensure that water is stored and released to satisfy the exercise of water rights in conformance with the Orr Ditch Decree.*

Acquisition of Carson Division water rights for transfer to the Lahontan Valley wetlands would not impact implementation or effectiveness of TROA because such actions would not increase Newlands Project demands nor change the priority of acquired water rights (which are junior to those that would be stored in upper Truckee River reservoirs).

4.26.4 COMPREHENSIVE MANAGEMENT PLAN FOR STILLWATER NWR

The Service anticipates preparing a comprehensive management plan for Stillwater NWR that will outline management objectives and strategies for achieving the purposes of the refuge, which are to (1) restore and maintain natural biological diversity on the refuge; (2) provide for the conservation and management of fish and wildlife and their habitats; (3) fulfill international treaty obligations with respect to fish and wildlife; and (4) provide opportunities for scientific research, environmental education, and fish and wildlife oriented recreation, as established in paragraph 206(b)(2) of Public Law 101-618. The comprehensive management plan will update the current Refuge Management Plan (Appendix 2) and will address in more detail issues

such as public use, recreation, hunting, livestock grazing, and long-term habitat objectives. The comprehensive management plan is not being considered in this EIS because this EIS considers the acquisition of water rights under subsection 206(a) of Public Law 101-618, whereas the comprehensive management plan will address management of Stillwater NWR under new direction provided under subsection 206(b) of the Public Law.

There is a possibility that a more in-depth examination of water-management strategies during the comprehensive management planning process for Stillwater NWR and similar planning processes for Carson Lake and Tribal wetlands could potentially result in a reduced total water demand than identified in this FEIS (i. e., 125,000 AF/year). If it is determined that less water is needed to sustain 25,000 acres of primary wetland habitat, and the Service relies heavily on sources other than purchased water rights from the Carson Division (e.g., Middle Carson River water, groundwater, Navy conserved water), it is possible that fewer water rights would be purchased. Another possibility is that less water would be acquired from other sources, such as groundwater. If less groundwater is used, or groundwater is not used at all, adverse impacts to the quality of wetland inflow would be reduced from those described in Sections 4.3.2, 4.7.1, 4.11, 4.12, and 4.14.

If less water rights are purchased in the Carson Division than is outlined under the Preferred Alternative, adverse impacts to the agricultural community would be less than described earlier in this chapter (Section 4.16). Also, reductions in canal losses (from laterals) and on-farm losses would not be as high as estimated for the Preferred Alternative under the 1987 management plan. This could reduce any adverse impacts to groundwater recharge and impacts to wildlife associated with agricultural areas.

One component of the Comprehensive Management Plan will be the evaluation of alternative wetland irrigation delivery patterns (timing of deliveries) and routing scenarios (i.e. taking irrigation water through one delivery point versus another point of delivery). Such actions have the potential to impact Newlands Project operating conditions such as Lahontan Reservoir releases, storage levels, and irrigation delivery efficiency rates. While the timing of deliveries are not anticipated to impact groundwater recharge, the routing of irrigation deliveries does have the potential to positively impact basalt aquifer recharge under certain conditions. These potential impacts and others will be evaluated in an EIS being prepared by the Department of the Interior for water management issues on the Truckee and Carson Rivers.

Over the long term, wetlands habitat, plants, and animals would benefit from the *updated management plan because the plan would outline long-range strategies for restoring and maintaining healthy wetland communities based on increased wetland inflow.*

4.26.5 NAS-FALLON STUDIES OF LAND MANAGEMENT OPTIONS TO REDUCE WATER USE FOR AIRCRAFT SAFETY PURPOSES

Paragraph 206(c)(3) of Public Law 101-618 states, "All water no longer used and water rights no longer exercised by the Secretary of the Navy as a result of the implementation of the modified land management plan or measures... shall be managed by the Secretary for the benefit of fish and wildlife resources. . ." *The Service and the Navy have signed a Memorandum of Agreement (MOA) that calls for the irrigation water saved or conserved at NAS-Fallon to be used by the Service for fish and wildlife purposes, primarily for cui-ui and secondarily for wetlands protection (see also Section 1.8.1(5)).*

NAS-Fallon has rights to approximately 10,230 AF of Newlands Project irrigation water. The Navy currently grows hundreds of acres of alfalfa near the runways *to control dust and foreign objects on the runways, and to suppress aircraft-caused fires in the surrounding area.* A report completed in July 1992 (U.S. Navy, 1992) proposed a management plan that would satisfy safety objectives and conserve as much as 5,000 AF of water. The NRCS is working with the Navy on a study to examine techniques for establishing and sustaining vegetation with reduced irrigation. The Navy completed an Environmental Assessment on its proposed water management plan in April 1994.

Implementation of the land management plan would reduce the volume of water previously used on NAS-Fallon to irrigate crops. *Conserved water will be used primarily for the Pyramid Lake fishery and may be available for Lahontan Valley wetlands protection. If the conserved water is not used for Lahontan Valley wetlands, the Service would have to rely more heavily on other water sources such as groundwater, Middle Carson River water, and leased water. A greater reliance on groundwater would adversely impact the quality of wetland inflows. Increased reliance on Middle Carson River water would increase impacts to agriculture in that area. Increased reliance on a leasing program would increase annual costs to the Service, but this would, in turn, positively affect economic conditions in the local community.*

Implementation of NAS-Fallon's land management plan would reduce the volume of water previously used on NAS-Fallon to irrigate crops for dust control and aircraft safety. Reducing the irrigation water use on NAS-Fallon farmland has the potential to reduce groundwater recharge by reducing seepage loss in laterals and possibly by reducing on-farm losses. The shallow water aquifer in particular could be adversely impacted in those areas where irrigation no longer occurs. Because NAS-Fallon lies outside of the

primary recharge zone of the basalt aquifer, only slight, if any, adverse impacts could potentially occur to basalt aquifer recharge.

4.26.6 TRANSFER OF CARSON LAKE

Subsection 206(e) of Public Law 101-618 provided for the conveyance of Carson Lake and pasture to the State of Nevada for use as a wildlife refuge. The Nevada Department of Wildlife is developing a management plan for Carson Lake, describing the State's strategy for water and wetlands management, public recreation, livestock grazing, and planned public facilities development. Carson Lake is one of the primary wetland areas in Lahontan Valley.

Because water will be needed to sustain wetland habitat on Carson Lake whether it is owned by Nevada or the federal government, the transfer of the area to the State of Nevada will have few, if any, effects on the amount of water to be acquired for sustaining a long-term average of 25,000 acres of wetland habitat on the primary wetland areas.

The transfer of Carson Lake to the State of Nevada and the purchase of up to $9 million of water rights by the State would reduce the amount of money that the Federal Government would have to spend to acquire water rights to sustain 25,000 acres of primary wetland habitat.

If transferred to and/or managed by the State of Nevada, the number of livestock that graze the area may be reduced. Increased control over livestock grazing, cumulative with increased wetland inflow, would likely result in higher quality wetlands habitat being produced and sustained on Carson Lake (than would exist with only increased wetland inflow) for waterfowl, shorebirds, and other wildlife associated with wet meadow and shallow-marsh habitats that are maintained by a certain level of livestock grazing.

4.26.7 RECOVERY PLANS FOR ENDANGERED AND THREATENED PYRAMID LAKE FISH

Subsection 207(a) of Public Law 101-618 requires the Secretary to expeditiously develop and implement a recovery plan for the endangered cui-ui and for the threatened Lahontan cutthroat trout.

Cui-ui

The Cui-ui Recovery Plan (USFWS 1992) identified three measures to increase the flow of water in the lower Truckee River, which is needed to secure cui-ui habitat in the lower Truckee River and Pyramid Lake: (1) developing and implementing an operating agreement for upper Truckee River reservoirs, (2) purchasing Truckee River water rights for delivery to the lower river and Pyramid Lake during the cui-ui spawning season, and (3) reducing Truckee River diversions.

The most direct approach to increasing lower Truckee River flows would be to purchase Truckee River water rights. The Service recently released a draft environmental assessment that considered and evaluated several alternatives for acquiring water rights for cui-ui under a pilot program. The proposed pilot program called for the acquisition of up to 3,500 AF of water rights. Finalization of the EA has been delayed pending completion of an eight-year study to assess the population status of cui-ui. Results of the study will be reviewed by the Cui-ui Recovery Team to determine the need for additional water rights acquisition.

Other actions, such as TROA (described in Section 4.26.3 above), the Truckee River Water Quality Settlement Agreement (Section 4.26.10 below), adjusted OCAP, and water rights acquisition for Lahontan Valley wetlands, could, if implemented, result in sufficient flows in the Truckee River such that other Truckee River water rights may not have to be

acquired. TROA is expected to change the timing of flows in the Truckee River to provide more water during the cui-ui spawning season. Proposed adjustments to OCAP and the acquisition of water rights for Lahontan Valley wetlands (under the Preferred Alternative) could result in reduced Truckee River diversions, thereby increasing lower Truckee River flows and the water level of Pyramid Lake. Raising the water level of Pyramid Lake would improve river access for cui-ui during the spawning season and maintain rearing habitat year-round.

If the actions described in the above paragraph and other habitat improvement projects identified in the Cui-ui Recovery Plan (USFWS 1992) do not provide sufficient benefits or equivalent benefits, up to 110,000 AF of Truckee River water rights may have to be acquired for cui-ui recovery. This strategy, which would provide the most dependable method of recovering cui-ui, would be evaluated under the NEPA process. As nonacquisition benefits are secured, the acquisition target would be reduced accordingly.

Within the Newlands Project, the Service intends to follow a policy of segregating water right acquisitions for the wetlands and cui-ui by *Newlands Project divisions*. The Truckee Division has been identified as a water rights acquisition source for cui-ui recovery efforts and the Carson Division has been identified as the source of wetland water rights acquisitions. The Service is also investigating whether Truckee River water rights are available outside of the Newlands Project, Truckee Division.

Implementation of a cui-ui water rights acquisition program would positively impact flow volumes in the Truckee River and Pyramid Lake inflows. Water that had previously been diverted from the Truckee River for agricultural and industrial purposes would remain in the river and eventually flow to Pyramid Lake. Additionally, water quality in the Truckee is expected to improve as more water remains in the

river, and agricultural runoff is expected to decline as the amount of land being irrigated is reduced. Further, the amplitude of river flow volumes may be moderated since some water acquired for cui-ui can be released in late summer when river flows are usually low. Increased stability of river flow rates would benefit biota in the river itself and throughout the watershed by providing more dependable aquatic and riparian habitats.

Potential adverse impacts of a water acquisition program for cui-ui are similar to those expected to occur as a result of the wetlands water acquisition program: agricultural lands would be taken out of production; the agrarian character of portions of the Truckee River basin would be changed as agricultural activities are reduced; and property tax revenues would change as taxable lands are removed from County tax rolls.

Water purchased from the Truckee Division for cui-ui recovery would no longer flow in the Truckee Canal. Reduced flow in the Truckee Canal and loss of irrigated farmland has the potential to adversely affect groundwater recharge in the Fernley area. Loss of irrigated farmland and reduced irrigation conveyance losses would further reduce drainwater volumes that now sustain the Fernley WMA wetlands. A decrease in the number of wetland acres at the Fernley WMA could affect the diversity and abundance of wetland-dependent species in the immediate vicinity. *Overall, the long term maintenance of 25,000 acres of wetlands in Lahontan Valley is expected to offset the loss of wetlands habitat at Fernley WMA.*

The acquisition of water rights from the Truckee Division of the Newlands Project for cui-ui recovery would not adversely impact Stillwater NWR, Carson Lake, or Tribal wetlands or the water rights acquisition proposed for the protection of those primary wetland areas.

Lahontan Cutthroat Trout

The Lahontan cutthroat trout Recovery Plan was accepted in January 1995 (U.S. Fish and Wildlife Service, 1995). At present, Pyramid Lake is not identified as one of the areas for recovery of Lahontan cutthroat trout. Since no conservation measures are planned for Pyramid Lake, no cumulative impacts to wetlands are expected.

4.26.8 NEWLANDS PROJECT RECOUPMENT

Subsection 209(j) of Public Law 101-618 directs the Secretary to pursue recoupment of any water diverted from the Truckee River in excess of the amounts permitted by applicable operating criteria and procedures during the period 1973-1987. *In January 1996, the federal government filed suit against TCID in the Federal District Court for Nevada, and seeks to have TCID repay 1,058,000 acre-feet of water over-diverted from the Truckee River.* The exact quantity of water to be recouped, the method of recoupment, and the time allowed for recoupment will be determined by litigation or negotiation.

If the government prevails in this lawsuit, some combination of the following actions (in addition to others) could be implemented as part of the recoupment program.

- **Truckee River diversions through the Truckee Canal to Lahontan reservoir could be reduced.**
- **Deliveries from the Truckee Canal to the Truckee Division could be reduced.**
- **Diversions and deliveries from Lahontan Reservoir to the Carson Division could be reduced.**

- **Allowable storage levels in Lahontan Reservoir to the Carson Division could be reduced.**
- **A credit program for water conservation on the Newlands Project could be developed.**

Recoupment could affect the wetlands by reducing *the total volume of Truckee River water available* to the Newlands Project. *Less water available to the Project could mean a reduction in the volume of deliveries of acquired water, less drainwater, and fewer spills.* The reduction of Project irrigation deliveries to satisfy recoupment requirements would delay attainment of sustaining 25,000 acres of wetland habitat.

Recoupment would result in more water for the Truckee River, which would help facilitate better fish passage across the lower Truckee River delta at Pyramid Lake. Recoupment would also enhance cui-ui spawning and rearing habitat, increase frequency of cui-ui spawning opportunities, act to partially achieve cui-ui recovery objectives, and improve water quality in the lower Truckee River seasonally.

If the Newlands Project Recoupment lawsuit is decided in favor of the Federal government, and, as part of the decision, less Truckee River water is diverted to the Carson Division, adverse impacts to groundwater recharge could be incurred. Under this scenario, less water would be applied to irrigated fields and it is possible that fewer acres of farmland would be irrigated in any given year. Recoupment, under the above scenario, could contribute to any given farmer's decision to not farm in shortage years.

If irrigation delivery reductions are imposed as a method of recoupment, biological resources associated with the Lahontan Valley wetlands would be impacted in a manner similar to impacts associated with drought conditions. Water availability would be reduced, lakes and ponds would lose water to evaporation and outflow that is not replaced, aquatic

habitat would be reduced, and the diversity and abundance of wetland organisms would decline. In addition, water quality conditions in the wetlands would be degraded due to *reduced irrigation-water inflow*.

Prolonged constrained water supplies could have a much greater impact on biological resources of a wetland area than natural drought. Under natural conditions there is some probability that a drought would last for only a few years but would be followed by average or above-average water years. *Under recoupment conditions, there may be no opportunity for relief until recoupment has been completed. If recoupment occurs, achieving a long-term average of 25,000 acres of primary wetland habitat may be delayed because water rights purchased for primary wetland habitats would be subject to the same reductions as agriculture water rights. It would only be in those years when significant high-water spills occur from Lahontan Reservoir that wetland acres could be at or above the 25,000-acre level. The adverse effects on wetland habitat described above may be reduced if all or part of the water-rights use rate (3.5 AF/acre/year instead of 2.99 AF/acre/year) serves as part of the recoupment payment.*

The secondary wetlands in the Lahontan Valley do not have water rights and they would experience impacts from recoupment because they have no means of offsetting lost drainwater inflows. During the recoupment period, most of these secondary wetlands would experience declining water levels due to the reduced volume of drainwater available. Secondary wetlands are not expected to fully recover until the recoupment period is completed.

Wildlife resources associated with wetlands and agricultural habitats in Lahontan Valley could be negatively impacted by recoupment. Habitats in both areas would be reduced in size and *wetland habitat would be degraded* in quality due to *any* loss of recouped water.

Recoupment would also have adverse socio-economic impacts on the Newlands Project. A reduction in the availability of water would mean fewer acres of irrigated agricultural lands. Crop production would be less, reducing income to farmers and the business community. Recoupment could result in some of the marginally profitable farms going out of business due to their inability to sustain viable production with an increase in the number of years when shortage conditions occur.

4.26.9 ADJUSTMENTS TO OCAP

The current Operating Criteria and Procedures (OCAP), adopted by the Secretary in 1988, are to remain in effect through 1997 unless the Secretary decides that changes are necessary to comply with his obligations pursuant to paragraph 209(j)(2) of Public Law 101-618. To respond to changing conditions in the Truckee and Carson River Basins, the Department of the Interior *is preparing a proposed rule making technical adjustments to* the 1988 Newlands Project OCAP. *An Environmental Assessment is also in preparation evaluating the potential environmental effects of the proposed rule. Because the outcome of that rule-making process has not yet been determined, cumulative impacts are speculative. The following discussion is intended to provide a general assessment of such cumulative impacts.*

Adjustments to OCAP could include mechanisms to account for lower irrigated acreage figures than used in the 1988 OCAP, *higher percentage use* of headgate deliveries, adjusted Lahontan Reservoir storage targets, and *lower-than previously-calculated irrigation delivery efficiencies (a factor of lower acreage estimates).* These factors could reduce the maximum annual irrigation demand used in modelling and thereby reduce diversions from the Truckee River to the Newlands Project. In addition, drainwater inflows *could be* reduced, useable spills from Lahontan Reservoir could be

decreased, Carson Division shortage *years could be* increased *slightly, and the magnitude of shortages during shortage years could be increased.* It is estimated that supply would be less than 75 percent of entitlement in 7 of 9 years, as compared to less than 75 percent of entitlement in 2 of 9 years under baseline conditions (Reclamation estimates, written communication, 1995).

The reduction in volume of spills and drainwater would reduce the amount of water flowing into the Lahontan Valley wetlands. Because the contribution of spills and drainwater to the wetlands annual water budget could be reduced by adjustments to OCAP, the Service may have to acquire slightly more water and/or water rights than is outlined under the Preferred Alternative in order to achieve the 25,000-acre wetland objective.

In the event the *estimated* maximum annual irrigation demand is reduced *in the models* as noted above, wetlands habitat, agricultural production, and the local economy could be affected by OCAP changes. *It is estimated that OCAP adjustments would only increase the number of shortage years from eight to nine out of 94 years, but the magnitude of shortages is expected to increase during shortage years.* This effect would be more noticeable during drought years. *During drought periods*, wetland habitat would be reduced and wetland-dependent species *could experience slight declines in* both diversity and abundance. *More severe shortages would reduce irrigation allocations, possibly resulting in fewer acres of agricultural land in production during shortage years.*

The proposed adjustments to OCAP could, as a consequence of reduced water availability to agriculture during shortage years, potentially reduce the amount of water that percolates to the shallow aquifer. However, these reductions are expected to be small and not easily measured.

Adjustments to OCAP are not expected to interfere with the exercise of valid Newlands Project water rights. Full headgate entitlement would be available to serve water rights in average or above average water supply years. An adjusted OCAP could positively impact the Truckee River basin. Such impacts would be similar to the benefits identified for recoupment except they would represent a more permanent condition. There would most likely be increased Truckee River inflow to Pyramid Lake and resultant increase in lake elevation. Indirect impacts would include more water in the Truckee River to facilitate fish passage across the Truckee River delta at Pyramid Lake; enhanced cui-ui spawning and rearing habitat; increased frequency of cui-ui spawning opportunities; and seasonal improvement of water quality in the lower Truckee River.

4.26.10 TRUCKEE RIVER WATER QUALITY SETTLEMENT AGREEMENT

The proposed Truckee River Water Quality Settlement Agreement seeks to resolve litigation over approval and operation of the Reno-Sparks water treatment facility brought by the Pyramid Lake Paiute Tribe against the State of Nevada, and the U.S. Environmental Protection Agency. Water Quality Settlement negotiations included the cities of Reno and Sparks, Washoe County, Nevada Department of Environmental Protection, EPA, the Pyramid Lake Tribe, the Department of the Interior, and the U.S. Department of Justice. The proposed agreement establishes a joint program to improve water quality in the Truckee River through purchase and dedication of water rights to that purpose and use of treatment effluent for certain purposes in place of fresh water. The agreement calls for a total of $24 million to be spent to acquire water rights in the Truckee River Basin from Truckee Meadows downstream to Pyramid Lake, including the Truckee Division of the Newlands Project. The joint program, funded by Reno, Sparks, Washoe County,

and the Department of the Interior is expected to result in more water flowing in the Truckee River, particularly during the summer months. The agreement is also expected to improve water quality of the lower Truckee River, enhance inflows to Pyramid Lake, and improve conditions for Pyramid Lake fishes.

Potential impacts of the Truckee River Water Quality Settlement Agreement are expected to be examined in an EIS being prepared by the Department of the Interior that will address water resource issues of the Truckee and Carson Rivers. Implementation of the agreement is not expected to affect the acquisition of water rights for Lahontan Valley wetlands. Wetlands water rights will only be acquired in the Carson River Basin, while the Truckee River Water Quality Settlement Agreement will focus on the acquisition of Truckee River water rights and specifically excludes Carson Division water rights.

Most of the water rights acquired to satisfy the Water Quality Agreement are expected to be acquired from agricultural properties and transferred off of those properties. Once the water rights have been removed, most of these lands would be converted from agricultural use to other land uses, including residential or industrial development, or left vacant to eventually revert to desert habitat. Potential impacts to the physical environment include, reduced runoff from agricultural operations, substantially reduced groundwater recharge in the Fernley area (including potential impacts to municipal supplies), enhanced flows in the lower Truckee River, improved water quality conditions in the lower river, and an increase in the level of Pyramid Lake. Discussions on developing long-term joint municipal water supplies for Fernley and Wadsworth and joint sewage facilities that could mitigate such effects are currently taking place.

Aquatic habitat and organisms living in the lower river and Pyramid Lake are expected to benefit from enhanced flows. Birds, mammals, and vegetation normally associated with agricultural activities will experience a reduction in available habitat as agricultural lands are converted to other land uses. This impact is expected to be offset by improved riparian habitat conditions along the Truckee River and a corresponding increase in populations of organisms adapted to riparian habitat that result from the overall increase of flow in the lower river.

Potential impacts to the local economy include reduction in the number of jobs in the agricultural sector, and reduction in the quantity and total value of locally produced agricultural products. The overall impact of these reductions is likely to be small when compared to similar impacts caused by increased population and development currently being experienced in the Truckee River corridor.

4.26.11 NAS-FALLON EXPANSIONS

The Navy has *relocated* their TOPGUN training operations from southern California to NAS-Fallon. There are a number of other smaller training and operational units that will be relocated to NAS-Fallon as other military bases are closed under the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510).

Employment, income, and taxable sales associated with NAS-Fallon accounts for the single largest segment of Churchill County's present economy. Changes in the level of operations at NAS-Fallon (either expansion or down-sizing) has the potential to significantly affect conditions in Churchill County, ranging from, but not limited to, employment, income, taxable sales, housing, land use, municipal services, school enrollment, domestic water supplies, traffic, and social values.

Expansion of NAS-Fallon will result in more demands being placed on the basalt aquifer as well as shallow and intermediate aquifers in the Fallon area as the population of the area increases. Data from the USES indicate that even at existing population and development levels, water is being extracted from the basalt aquifer faster than it is being replaced. Furthermore, farmland will continue to be taken out of production as urban expansion continues, which could reduce the amount of water that percolates into shallow and intermediate aquifers. At present, much of the growth in the Fallon area is within the primary recharge areas of the basalt aquifer. Continued growth in this area, therefore, could potentially reduce recharge of the shallow and basalt aquifers. Increased pumping of the basalt aquifer and other groundwater sources as a result of additional growth and development, in combination with continued conversion of farmland to residential and other development, could result in further declines in groundwater volumes available for domestic use.

A draft environmental assessment (EA) document prepared for the Navy stated that the relocation activities will increase direct Fallon-NAS employment by 210 positions. Findings made by the Churchill County Prison Task Force anticipated that NAS-Fallon expansion could generate increased, indirect employment by as many as 284 jobs. Increasing employment in Churchill County by almost 500 new jobs has the potential to significantly increase total countywide income and taxable sales. These increases will have positive effects on the Churchill County economy but will also place additional demands on schools, land use, municipal services, and housing.

4.26.12 GROWTH AND DIVERSIFICATION OF CHURCHILL COUNTY

The affected area has shown increases in residential housing, subdivisions, and commercial development in the

past few years. The Service expects this trend to continue throughout the affected area. There are several new tentative subdivisions filed with Churchill County that would convert agricultural land to residential parcels, but only about 10 percent of these proposed subdivisions involve lands where the Service or the State of Nevada have acquired the water rights for wetlands protection. Due to the population growth in the affected area, there is existing demand for increased housing, more retail businesses, and expanded services. The impacts associated with growth, such as increased demand for water, fire and police protection, sewer service, roads, and recreational facilities would exist regardless of the Service's actions to protect primary wetland habitat.

Under existing conditions, groundwater supplies and water quality are already at levels of concern for some individual well owners. Increased growth would create more demand on groundwater supplies, which in Churchill County may be insufficient in some areas. Continued growth within the City of Fallon could adversely impact basalt aquifer recharge as well as shallow and intermediate aquifer recharge to the east of Fallon. *Data from the USGS indicate that even at existing population and development levels, water is being extracted from the basalt aquifer faster than it is being replaced. Farmland will continue to be taken out of production as urban expansion continues, which could reduce the amount of water that percolates into shallow and intermediate aquifers. At present, much of the growth in the Fallon area is within the primary recharge areas of the shallow and basalt aquifers. Continued growth in this area, therefore, could potentially reduce recharge of the basalt aquifer.*

More demand will be placed on the shallow and intermediate aquifers as more houses are constructed and more wells tap into the aquifers outside of the city limits of Fallon. Farmland will continue to be taken out of production, which could reduce the amount of water that percolates into

the shallow aquifer. Increased pumping of the basalt aquifer and other groundwater sources as a result of additional growth and development, in combination with continued conversion of farmland to residential and other development, could result in further declines in groundwater volumes available for domestic use. As described in Section 3.3.3.1. 1, water use-rate of the basalt aquifer appear to be greater than recharge rates, which could indicate that the aquifer is being mined. If this is true, continued growth in the Fallon area could have a significant adverse impact on recharge of the basalt aquifer. Increased pumping of the basalt aquifer could also potentially adversely impact down-gradient shallow and intermediate aquifers (east of Fallon).

As more irrigated farmland is converted to residential and other development, less farmland and associated drains will be available to wildlife that use such lands. Remaining drains and farmland adjacent to residential areas will become less effective wildlife habitat due to increased predation by cats and dogs, and increased human disturbance. As residential areas spring-up throughout the agricultural areas of Churchill County, agricultural areas will become less attractive to some species of wildlife. However, some species of wildlife, such as house sparrows, will benefit from these conversions.

Reductions in irrigated farmland will reduce the agricultural contribution to the local economy and will reduce agriculture-related jobs.

Another aspect of growth, both in terms of population and development, is that there is an associated change in lifestyle. *Lifestyle* changes can be experienced by residents as *communities grow and diversify* (new businesses, more housing, shifts in economic structure, new sources of income and employment). All of these aspects of diversification are currently occurring within the affected area. The Service's actions, *in combination with anticipated growth and*

development in the local community, have the potential to accelerate or exacerbate the sense of change and diversification in the *Fallon* area.

4.26.13 TRANSFER OF THE INDIAN LAKES AREA

Section 206(g) of Public Law 101-618 authorized the Secretary of the Department of the Interior to transfer the Indian Lakes area to Churchill County or the State of Nevada, pursuant to an agreement between the Secretary of the Department of the Interior and Churchill County or the State of Nevada, for the purposes of fish, wildlife, and recreation. The Indian Lakes area consists of approximately 9,355 acres of public land within what is now Stillwater Wildlife Management Area. If transferred to Churchill County, it is anticipated that the County will subsequently transfer the Indian Lakes area to the City of Fallon.

An environmental assessment that addressed the potential impacts of the transfer was completed by the Service and a Finding of No Significant Impact was issued in March 1996. The Service received written confirmation by Churchill County of the County's desire to acquire the Indian Lakes area and to subsequently convey the title of the area to the City of Fallon (letter dated July 10, 1996).

If the Indian Lakes area is transferred to Churchill County and the area is subsequently transferred to the City of Fallon, it is not expected that there would not be any noticeable impacts to the resource areas addressed in Chapter 4 of this FEIS. No significant adverse impacts were identified in the environmental assessment.

4.26.14 20,000 ACRE-FEET WATER RIGHTS ACQUISITION PROGRAM

The 20,000 AF water rights acquisition program is an integral part of all of the alternatives (Sections 2.4 and 2.5).

The 20,000 AF sets the upper limit of water rights acquisitions in the No Action Alternative (Alternative 1) and it is included in the upper limits of water rights acquisitions in the action alternatives.

Compared to no acquisition conditions, the purchase and transfer of 20,000 AF of water rights in the Carson Division to the primary wetlands is expected to have slightly improved Newlands Project delivery efficiency, based on the BLR model (from and estimated 67.3 percent to 67.8 percent). Lahontan Reservoir storage could increase slightly (from 254,600 AF to 255,300 AF, June 1). However, no noticeable changes in Truckee River diversions at Derby Dam or lower Truckee River flows are expected.

Water quality in the primary wetland habitats is expected to improve as a consequence of irrigation water being delivered to the wetlands. Under no acquisition conditions, no irrigation water flows into the wetlands in most years. Over the long term, irrigation water comprises about 20 percent of the wetland inflow. Acquisition of 20,000 AF of water rights would result in this long term average increasing to about 45 percent.

Changes to groundwater or groundwater recharge are not anticipated to be measurable under the No Action Alternative as compared to no acquisition conditions. Adverse impacts to the shallow aquifer may occur in localized areas, but this is not expected to impact recharge of the basalt aquifer because most of the acquisitions are occurring outside of the primary recharge zone.

Primary wetland habitat is expected to increase by about 25 percent over no acquisition conditions (from an estimated long-term average of 9,700 acres to an estimated long-term average of about 12,100 acres). This will benefit wetland-dependent wildlife in the Lahontan Valley. Reductions in

irrigated farmland could adversely impact some wildlife species in localized areas.

Irrigated, water-righted farmland is expected to decline by as much as about 5,600 acres in the Carson Division (from an estimated 52,800 acres to an estimated 47,100 acres). Accordingly, alfalfa production and sales would decline by about 10 percent (from about 315,100 tons/year and $28 million to about 283,122 tons/year and $25.2 million, respectively).

Outdoor recreational opportunities would increase somewhat.

4.26.15 AGRICULTURAL PRODUCTION

The Newlands Project and associated agricultural production in the Carson Division has resulted in a greatly expanded shallow aquifer in the Lahontan Valley (Maurer and others, 1994). The Newlands Project increased the amount of waterways in the Lahontan Valley from less than 100 miles (possibly as low as 30 miles) to about 380 miles. The shallow aquifer associated with pre-Newlands Project waterways (i.e., Carson River channels) is depicted in Figure 3.3.C and the shallow aquifer associated with Newlands Project waterways and associated irrigated lands is depicted in Figure 3.3.D.

The expansion and maintenance of the shallow aquifer in the Lahontan Valley is the result of surface water being more widely distributed throughout the valley as a consequence of the network of Newlands Project delivery canals and laterals. Assuming that on-farm losses are offset by use of groundwater by alfalfa (Maurer and others, 1994), the actual irrigated crops of alfalfa do not appear to contribute substantially to shallow aquifer recharge, as compared to the canals and laterals.

Irrigated farmland in the Lahontan Valley provides habitat for several wildlife species (Sections 3.9 - 3.15). Irrigated farmland is used as foraging areas for some species such as white-faced ibis and Canada geese.

Assuming no acquisitions of water rights for primary wetlands, alfalfa production contributes about $16 million annually in economic activity in Churchill County (MacDiarmid and others, 1994b). Agricultural output is responsible for about 20 percent of the $442 million in economic activity in Churchill County. About 8 percent of the jobs in Churchill County are directly related to agriculture.

Agricultural production in the Lahontan Valley has sustained an agrarian way of life for some people, and th.- irrigated fields are an important part of the Fallon-area environment for many other people. In a recent survey (Mooney and others, 1995), it was found that about 57 percent of the people in the Fallon area strongly agreed that agriculture should be retained in the community (see Section 3.23.1 for more detail).

4.26.16 SUMMARY OF CUMULATIVE IMPACTS WITHOUT THE PREFERRED ALTERNATIVE

In this section, the potential impacts of each of the above activities and actions are summarized, by resource area. The objective of this section is to present the impacts to major resources that are occurring or will occur without the Preferred Alternative. Mitigation is addressed to some extent in this section. The next section (Section 4.26.17) identifies the anticipated impacts of the Preferred Alternative as added to the effects of all other activities and actions that are addressed in this cumulative impact analysis (i.e., Sections 4.26.1-4.26.15).

Newlands Project Operations. Several activities and actions, in combination, could potentially contribute to higher Newlands Project delivery efficiency rates: acquisition of water rights for the Fallon Reservation lands, adjusted OCAP, implementation of NAS-Fallon's modified land management plan, growth of Churchill County (including the NAS-Fallon expansion), and completion of the 20,000 AF water rights acquisition program. To the extent that conversion of farmland to residential and other urban developments occur in a blocked pattern, growth in Churchill County could improve Newlands Project delivery efficiency rates. To the extent that conversion of farmland to residential and other urban developments occur in a checkerboard pattern or along the major delivery canals, growth in Churchill County will contribute to decreased Newlands Project delivery efficiency rates. Residential development in Churchill County generally has concentrated around the City of Fallon, but some development is occurring outside of this growth pattern. Thus far, the acquisition of water rights for wetlands under the 20,000 AF acquisition program generally has occurred in a blocked pattern.

As deliveries to farmland decline and total irrigation demand decreases, less water will be released from Lahontan Reservoir and less water will be diverted from the Truckee River at Derby Dam under average conditions.

Water Resources. As more farmland is converted to non-irrigated uses, due to the implementation of NAS-Fallon's modified land management plan, continued residential and other urban development (a consequence of growth of Churchill County and NAS-Fallon expansion), and the acquisition of 20,000 AF of water rights, water quality of wetland inflows will improve. The closure of TJ drain also would contribute to improved quality of wetland inflow. Conversely, the acquisition of water rights for the Fallon Reservation lands and subsequent conversion of non-

irrigated lands to irrigated farmland on the Reservation could increase drainwater inflow via the TJ Drain in the short term. This could result in degraded water quality during the period that TJ Drain remains open.

Past, present, and potential-future activities and actions that have the potential to influence groundwater levels and recharge in the Lahontan Valley include the acquisition of water rights for the Fallon Paiute Shoshone Reservation Agricultural Lands, Newlands Project Recoupment, OCAP adjustments, NAS-Fallon expansion, NAS-Fallon water conservation, population growth in the Fallon area, and the 20,000 AF water rights acquisition program for Lahontan Valley wetlands.

Purchase of up to about 8,453 AF of water rights from within the Carson Division to the Fallon Paiute-Shoshone Reservation could result in the relocation of up to about 2,415 acres of irrigated farmland. To the extent that the place of use of purchased water rights are changed to the Reservation, which is located east of the major groundwater recharge zone in the Lahontan Valley, shallow water recharge could be affected in localized areas where water rights are purchased and transferred to a different place of use. The purchase of up to an additional 20,000 AF of water rights for the Lahontan Valley wetlands could result in about 5,600 acres of irrigated farmland being taken out of production in the Carson Division. Most of the acquisitions for the 20,000 AF acquisition program have occurred outside of the primary recharge zone of the basalt aquifer. Lining of laterals and reduced volumes of water being applied to fields under NAS-Fallon's land management plan could result in lowered shallow aquifer recharge rates in localized areas. Combined, these actions are not expected to have significant, widespread adverse impacts to groundwater recharge. Lining of canals in other parts of the Carson Division would contribute to adverse impacts to shallow aquifer recharge.

Ongoing residential development has the potential to adversely impact shallow and intermediate aquifers. A growing number of domestic wells will continue to put more demand on this water supply and conversion.of farmland and concurrent abandonment of laterals will serve to reduce recharge to the shallow aquifer, particularly if such development continues to occur west of Fallon. Additionally, conversion of farmland to residential and other urban developments is currently taking place within the recharge zone of the basalt aquifers, which could adversely affect the domestic supply for Fallon, NAS-Fallon, and the Fallon Paiute-Shoshone Indian Reservation. Much of the conversion of irrigated farmland to non-irrigated uses within the primary recharge zone of the basalt aquifer (Figure 3.3.F) is currently a consequence of urban expansion.

The effects of residential development and continued growth in the community (including NAS-Fallon expansion) combined with impacts from lining of irrigation canals and laterals, acquiring water rights for the Fallon Tribes, acquiring 20,000 AF of water rights for Lahontan Valley wetlands, adjusted OCAP, and recoupment are likely to adversely impact groundwater recharge in the Lahontan Valley. A municipal water system for Churchill County/Fallon that supplements groundwater pumping with other water sources (e.g., Newlands Project surface water) would offset impacts to groundwater recharge, and would provide Churchill County residents with a reliable source of domestic water. A municipal water system that relies less heavily on groundwater would provide an opportunity for improving the quality of the domestic water supply in Churchill County.

Vector, Erosion, Agricultural Pest Control, and Air Quality. Increasing primary wetland habitat acreage by about 25 percent (from an estimated long-term average of 9, 700 acres to about 12,100 acres) would increase breeding

grounds for mosquitos. Some of these impacts could potentially be reduced through strategic water management and ongoing mosquito abatement.

The conversion of irrigated farmland to non-irrigated uses in the Carson Division resulting from the acquisition of water rights for Fallon Reservation agricultural production and the acquisition of 20,000 AF of water rights for Lahontan Valley wetlands could potentially result in short term increases in wind erosion to the extent that vegetation cover on vacated farmland declines. This could result in short term impacts to air quality, although the prevailing winds out of the west and southwest would minimize any potential problems as the affected farmlands are primarily to the east and south of Fallon. The acquisition of irrigation water rights could potentially eliminate some agriculture-related dust impacts associated with plowing, disking, burning, and other agricultural activities. As urban expansion continues and more farmland is converted to residential and other developments in the Fallon area, degradation of air quality due to agricultural activities should decline in the immediate vicinity of Fallon, although urban-related air quality problems related to such things as trash burning, dust from roads, and combus-tion from vehicles and home-heating units, would increase.

Remaining farms in the Carson Division could potentially experience increased problems with weeds and vertebrate and invertebrate pests.

Vegetative Communities and Wildlife. Primary wetland habitat would increase from an estimated long-term average of 9,700 acres to an estimated long-term average of 12,100 acres as a consequence of acquiring 20,000 AF of water rights for the wetlands. Furthermore, the transfer of Carson Lake and preparation of wildlife-habitat management plans for the primary wetland areas would result in more effective management of primary wetland habitat for wildlife.

Wetland-dependent wildlife would benefit. Conversely, wetland habitat could be adversely impacted by adjustments to OCAP and possibly by Recoupment.

The combination of acquiring water rights for the Fallon Reservation lands (depending on pattern), Recoupment, adjusted OCAP, converting agricultural areas to residential and other developments, and acquiring 20,000 AF of water rights for Lahontan Valley wetlands could potentially reduce the long-term average acreage of secondary wetland habitat in the Lahontan Valley. However, any losses would be more than offset by increased acreage of primary wetland habitat. Although it could also reduce the amount of artificially-created riparian habitat, the creation of new irrigated farmland and associated infrastructure on Fallon Reservation lands could offset these potential losses.

Acquiring 20,000 AF of water rights for Lahontan Valley wetlands is expected to reduce the amount of agricultural vegetative communities in the valley by about 5,700 acres. Converting agricultural areas to residential and other developments would reduce this community type even further. Wildlife associated with agricultural areas would be adversely impacted. Acquisition of water rights for the Fallon Reservation lands would not reduce the amount of irrigated farmland because an equal number of acres irrigated farmland would be created on reservation lands.

Cui-ui and other Pyramid Lake/lower Truckee River resources could benefit slightly from increased Newlands Project delivery efficiency (see above discussion). Additionally, they would benefit from the implementation of TROA, the Truckee River Water Quality Settlement Agreement, adjusted OCAP, and actions to enhance cui-ui populations (especially the acquisition of Truckee River water rights).

Agriculture, Farmland, Local Economy, and Land Use. As a consequence of acquiring 20,000 AF of water rights for

primary wetland areas, irrigated, water-righted farmland in the Lahontan Valley is expected to decline by about 5,700 acres. Reduced irrigation on NASFallon lands and will cause more farmland to be converted to less profitable agriculture and possibly non-irrigated uses. Continued construction of new homes and other developments (due in part to NAS-Fallon expansion) will cause more farmland to be converted to residential areas, businesses and other services, and industry. Given the current population growth-rate in Churchill County (2-3 percent/year), the location of prime farmland in Churchill County, and the current growth pattern (occurring in areas containing prime farmland), adverse impacts to prime farmland could be substantial. As a consequence, agricultural production, agricultural sales, and agricultural-related jobs will decline in Churchill County. As residential developments encroach on agricultural areas in a checkerboarded or leap-frog pattern, remaining farmers could be adversely impacted by new residents complaining about normal farming activities. In addition, the Truckee River Water Quality Settlement Agreement could lead to several thousand acres of other agricultural lands in the region being taken out of production, further affecting the agriculture economy.

Some of the reductions in agricultural economic activity and jobs would be at least partially offset by increased economic activity (including new home construction) and jobs resultingfrom income gains associated with water rights purchases, NAS-Fallon expansion, construction, and economic diversification. A mitigation measure that could potentially be implemented to reduce adverse impacts to the agricultural community would be to establish one or more farmland protection zones in which parceling and subdivision would be prohibited, land use would be restricted to agriculture. Although the current Churchill County Master Plan has classified lands in Churchill County as agricultural lands, this does not appear to prevent parcelling and

development of residential areas on these lands. In combination with a farmland protection zone, a conservation easement program could be established to purchase development rights.

Recreation. Increased acreage of primary wetland habitat is expected to increase outdoor recreational opportunities. However, these increases could be partially offset by lower average storage in Lahontan Reservoir resulting from adjustments to OCAP and possibly as a consequence of Recoupment. Recreation associated with open expanses of water (such as at Lahontan Reservoir) may be adversely impacted.

Population Growth. Churchill County is expected to continue growing at a rate of 2-3 percent per year during the next 5 years and possibly beyond. Population growth in Lyon County is expected to continue at a rate of about 5-6 percent. NAS-Fallon expansion, as described above, will result in further growth in the Fallon area. The other activities and actions described in this cumulative impact analysis are not expected to impact population growth in Churchill County above the anticipated growth rates described in the 1990 Churchill County Master Plan.

Land Values. It is not expected that acquisition of water rights for the Fallon PaiuteShoshone Tribes and the primary wetlands will adversely impact land values. As the Fallon area continues to grow, land values are expected to increase in the Lahontan Valley. The magnitude of increase will likely be influenced by the NAS-Fallon expansion.

Individually, the activities and actions addressed in this cumulative impact analysis are not expected to impact the slow upward trend in agricultural land values. However, it is possible that the rate of increase in agricultural land values could be affected by the combination of these factors.

Property Taxes. Privately held water-righted lands acquired in trust for the Fallon PaiuteShoshone Tribes would

no longer be subject to county property taxes. Lands from which only water rights are sold and transferred to the Fallon Paiute-Shoshone Reservation and which are subsequently converted to non-agricultural uses could be subject to a slightly higher tax rate than they would be if they remained in agricultural production. This would also be true of water rights acquired for Lahontan Valley wetlands and the subsequent conversion of irrigated farmland to non-agricultural uses.

Municipal Services. Aside from water supply, none of the activities and actions addressed in this analysis, except NAS-Fallon expansion and growth and diversification, are expected to impact municipal services. As the population of Churchill and Lyon Counties grow, the demand for municipal services will increase correspondingly. Water supply is covered under the Water Resources section above.

Social Values. As the Fallon area continues to grow and continues to shift away from an agrarian community and toward a more diversified and suburban community, the change will be viewed by some people as negative and it will be viewed by other people as positive. The purchase of water rights for the primary wetlands, NAS expansion, and continued growth in Churchill County will contribute to the shift away from an agrarian community, but will increase wetland-associated recreational opportunities for some members of the community and will provide a more diverse local culture.

Indian Trust Assets and Cultural Resources. Pyramid Lake and lower Truckee River resources could benefit slightly from increased Newlands Project delivery efficiency (thus benefitting Pyramid Lake Paiute Tribe). These resources would also benefit from the implementation of TROA, the Truckee River Water Quality Settlement Agreement, adjusted OCAP, and actions to enhance cui-ui populations (especially the acquisition of Truckee River water rights). The

acquisition of 20,000 AF of water rights for primary wetlands would not directly benefit wetlands on the Fallon Paiute-Shoshone Indian Reservation because water rights would not be purchased in trust for the reservation under the 20,000 AF acquisition program.

The acquisition of water rights for primary wetlands (20,000 AF) would enhance the preservation of prehistoric cultural resources at Carson Lake and Stillwater NWR. This would occur as a consequence of more water covering cultural resource sites in the primary wetland areas. Population growth in Churchill County could adversely impact cultural resources in some areas as a consequence of land development in some areas and as a consequence of more people recreating in the area around Fallon.

Acquisition Costs. Acquisition of water rights for the Fallon Paiute-Shoshone Tribes and purchase of water rights for primary wetlands could result in more competition for privatelyowned water rights in the Lahontan Valley. The purchase of up to $9 million of water rights by the State of Nevada would reduce the amount of money that the Federal government would have to spend on acquiring water rights to sustain 25,000 acres of primary wetland habitat.

4.26.17 SUMMARY OF CUMULATIVE IMPACTS WITH THE PREFERRED ALTERNATIVE

This identifies the anticipated impacts of the Preferred Alternative as added to the effects of all other activities and actions that are addressed in this cumulative impact analysis (e.g., those covered in Sections 4.26.1-4.26.15, above). Mitigation relative to the Preferred Alternative (Alternative 5) is discussed in earlier sections of this chapter (Sections 4.2-4.25).

Newlands Project Operations. The acquisition of 75,000 AF of water rights in the Carson Division under the Preferred

Alternative (including the 20,000 AF acquisition program), couples with the acquisition of water rights for the Fallon Reservation lands, adjusted OCAP, implementation of NAS-Fallon's modified land management plan, and growth of Churchill County (including the NAS-Fallon expansion), would further improve Newlands Project delivery efficiency rates, reduce storage levels at Lahontan Reservoir, and reduce the average volume of water diversions from the Truckee River. (Please refer to Section 4.2 for more detail.) These actions in combination may require some canal enlargements and other improvement, and would most likely result in the abandonment of some existing canals and drains.

Water Resources. To the extent that poor-quality groundwater is not used to supplement wetland inflows, the Preferred Alternative would further enhance water quality of these inflows beyond which would occur under baseline conditions, including the acquisition of 20,000 AF of water rights for the wetlands, closure of TJ drain, implementation of NASFallon's modified land management plan, and continued conversion of farmland to residential and other urban development. (Please refer to Section 4.3.2 for more detail.)

Although the Service's actions would not exacerbate impacts associated with basalt aquifer water-extraction rates, Alternative 5 has the potential to reduce basalt aquifer recharge to a limited extent. Acquisition and transfer of water rights under the Preferred Alternative would adversely impact shallow and intermediate aquifer recharge in localized areas, but the impacts are not expected to be widespread. If groundwater is pumped to supply wetlands with groundwater, this would occur near Stillwater NWR, located outside of the recharge zone of the shallow and intermediate aquifers, and would not adversely impacted groundwater users in the western and west-central parts of the Lahontan Valley.

Cumulatively, the effects of residential development and continued growth in the community (including NAS-Fallon

expansion), lining of irrigation canals and laterals, acquisition of water rights for the Fallon Tribes, adjusted OCAP, recoupment, in addition to the Service's action of acquiring water rights for Lahontan Valley wetlands (under the Preferred Alternative), are likely to adversely impact groundwater recharge in the Lahontan Valley. As discussed above, a municipal water system for Churchill County/Fallon that makes combined use of Newlands Project (surface) water, as well as the shallow, intermediate, and basalt aquifers, would lessen impacts associated with groundwater recharge. A system that relies solely on surface water would eliminate these anticipated adverse impacts.

Existing and anticipated demands for domestic-supply from the basalt aquifer have the greatest potential to adversely impact water quality in the basalt aquifer, as well as altering recharge pathways and volumes. Groundwater in the Middle Carson River and Fernley areas would not be impacted. (Please refer to Section 4.3.3 for more detail.)

Vector, Erosion, Agricultural Pest Control, and Air Quality. Conversion of an additional 15,400 acres of irrigated farmland to non-irrigated uses under the Preferred Alternative would increase the amount of potential mosquito breeding grounds and could potentially exacerbate agricultural pest, wind erosion, and air quality problems in the Carson Division as well as along the Middle Carson River corridor. (Please sections 4.4 and 4.5 for more detail.)

Cumulatively, potential breeding areas for mosquitos will increase outside of the Fallon area (at the primary wetland areas) and could decline somewhat within the more urban areas of Fallon (as drains and associated secondary wetlands go dry). A significant amount of land will be converted from irrigated farmland, where agricultural pests are often controlled, to non-irrigated uses, where agricultural pests may persist unchecked unless the land is converted to a more

intensive use such as residential areas. This could increase pest problems on some farmlands.

Vegetative Communities and Wildlife. Implementation of the Preferred Alternative would further increase the amount of primary wetland habitat to a long-term average of about 25,000 acres. Any further reductions in secondary wetland habitat acreage would be more than offset by this increase in primary wetland habitat acreage.

Further reductions in farmland habitat in the Carson Division and the Middle Carson River would occur under the Preferred Alternative, and further adverse impacts to wildlife associated with agricultural areas would occur.

Cui-ui and other Pyramid Lake/lower Truckee River resources would further benefit from the Preferred Alternative. If the Preferred Alternative, TROA, the Truckee River Water Quality Settlement Agreement, and adjusted OCAP are all implemented, the cumulative impacts could provide fro cui-ui recovery and additional water rights may not have to be purchased for cui-ui recovery. (Please see Sections 4.6-4.15 for more detail.)

Cumulatively, wetland habitat and associated wildlife in the Lahontan Valley will benefit significantly in the long term from the Preferred Alternative, including the 20,000 AF acquisition program, and closure of TJ Drain, even with other actions and activities tending to adversely impact wetland habitat (e.g., adjusted OCAP and possibly Recoupment).

Agriculture, Farmland, Local Economy, and Land Use. Acreage of irrigated farmland would decline in the Carson Division by another 15,400 acres and along the Middle Carson River by as much as 4,800 acres, which further impact the agricultural communities in Churchill and Lyon Counties beyond the impacts that would occur as a result of the activities and actions listed above. (Please see Sections 4.16 and 4.19 for more detail and for information on possible

mitigation measures.) In combination with the other activities and actions addressed in this analysis (including the already occurring growth and diversification of Churchill County), agricultural production would be significantly adversely affected.

Implementation of the Preferred Alternative, cumulative with TROA, the Truckee River Water Quality Settlement Agreement, and adjusted OCAP may result in fewer Truckee Division and Truckee River water rights having to be purchased. This could slightly reduce potential adverse impacts to the agricultural community along the Truckee River and Truckee Division of the Newlands Project as compared to conditions without implementation of the Preferred Alternative (Section 4.26.16).

Recreation. Further increases in primary wetland habitat would further increase recreational opportunities associated with wetlands. (Please see Section 4.17 for more detail.) Cumulatively, recreational opportunities associated with wetlands would increase in Churchill County.

Population Growth. Implementation of the Preferred Alternative is not expected to adversely affect population growth in Churchill and Lyon Counties. (Please see Section 4.18 for more

Land Values. It is not expected that the Preferred Alternative would adversely impact land values. (Please see Section 4.20 for more detail.)

Property Taxes. The Preferred Alternative would further increase tax revenues to Churchill County, and could potentially increase revenues to Lyon County, through land conversion (and increased tax rate on these lands) and increased revenue sharing payments by the Service. (Please

see Sections 4.21 and 4.25 for more detail.) Cumulatively, revenue paid to Churchill County and possibly Lyon County would increase.

Municipal Services. The Preferred Alternative is not expected to impact municipal services. (please see Section 4.22 for more detail), with the possible exception that cumulative effects of water rights acquisitions for Lahontan Valley wetlands, OCAP adjustments, and growth and diversification, could potentially reduce basalt aquifer recharge.

Social Values. The continued purchase of water rights under the Preferred Alternative for the primary wetlands will contribute to the shift away from an agrarian community, but will increase recreational opportunities for some members of the growing community. (Please see Section 4.23 for more detail.) Cumulatively, "farmland preservation values" will be significantly-affected as the Fallon area shifts further away from an agrarian community toward a more urban community and as more farmland is changed to other uses.

Indian Trust Assets and Cultural Resources. The acquisition of water rights for primary wetlands would enhance Indian Trust Assets (except for potential adverse impacts (i.e., competition) to the acquisition of water rights for agricultural purposes for the Fallon PaiuteShoshone Reservation) and the preservation of prehistoric cultural resources at Carson Lake and Stillwater NWR. The latter would occur as a consequence of more water covering cultural resource sites in the primary wetland areas. (Please see Section 4.24 for more detail.)

Acquisition Costs. Acquisition of water rights for the primary wetlands under the Preferred Alternative could result in more competition for privately-owned water rights in the Lahontan Valley. (Please see Section 4.25 for more detail.)

4.27 POSSIBLE CONFLICTS WITH AGENCY, TRIBAL, COUNTY OR STATE PLANS OR POLICIES.

4.27.1 FARMLAND PROTECTION POLICY ACT (FPPA)

Under FPPA, federal agencies are to assure that their programs, to the extent practicable, are compatible with State, local government, and private programs and policies to protect farmland. The following addresses the extent to which the Service's Preferred Alternative would conflict with Nevada State, Churchill County, and private programs to protect farmland.

There currently are no Nevada State farmland protection programs or policies with which the acquisition of water rights for wetlands protection would conflict.

Although the 1990 Churchill County Master Plan did not identify any goals for protecting farmland in the county, the Service's Preferred Alternative appears to conflict with one of the fundamental concepts of the land use master plan, which is to retain farmland for agricultural use through the categorization of certain lands in Churchill County for agricultural use. It is estimated that just over half of the farmland in the Carson Division occurs in areas designated for agricultural use (based on Map #25 of the Churchill County 1990 Master Plan in conjunction with NRCS's 1980 Important Farmland map for Churchill County). As a result of acquiring water rights for Lahontan Valley wetlands protection, a portion of these lands would be converted to non-agricultural uses, such as non-agricultural open space. The Preferred Alternative would minimize these adverse impacts, as compared to the other action alternatives.

Although there has been discussion on the establishment of a farmland protection program for Churchill County

(Lahontan Valley Environmental Alliance Land Use Working Group), no such program has been established.

4.27.2 CHURCHILL COUNTY MASTER PLAN

Aside from the potential conflict identified above, the water rights acquisition program is not in conflict with the 1990 Churchill County Master Plan. However, Churchill County's Master Plan is currently undergoing revision. Changes in the plan could provide mitigation for some of the impacts associated with land use, land values, and social values as identified in those sections of this document.

4.27.3 PYRAMID LAKE PAIUTE TRIBE

The Pyramid Lake Paiute Tribe has contested many water right transfers in the Newlands Project, and litigation regarding these rights is ongoing. In an effort to avoid possible conflicts with the Tribe and State law, the Service has agreed to transfer only eligible water rights (please refer to Section 2.6.2, ELIGIBILITY CRITERIA).

4.28 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects are those consequences or impacts that occur as a result of the actions and cannot be mitigated. In the previous sections of this chapter the Service has identified the effects of the Preferred Alternative on the various components of the Lahontan Valley environment, including the social and economic environment. Possible relevant and reasonable mitigation measures are described in general terms for each of the major affected resources. Many of the mitigation measures described are outside of the jurisdiction or purview of the Service but are included to encourage other agencies, individuals or affected parties to implement such mitigation measures when possible. Since the Service cannot ensure or determine that the identified mitigation measures will be fully implemented, there are likely to be situations where unavoidable effects will occur.

For the Lahontan Valley, the Preferred Alternative of acquiring water for the wetlands is expected to cause unavoidable adverse impacts to the agricultural economy, agriculture-dependent wildlife, and "farm preservation values" of community members. Agricultural jobs will be lost and the community will experience a shift in its economy as farmlands go out of production. As a result, the character of the community may be substantially altered *by the time the water rights acquisition program is completed.*

Change is occurring in the Fallon community and social values are being noticeably impacted by a variety of factors *unrelated to the proposed acquisition program.* Long-time residents are seeing the community change as growth rates, housing demands and job opportunities increase. At the same time, the community is shifting from an agrarian and agriculturally based lifestyle to one that is more urban and economically diverse. Some residents are resistant to such change and perceive that these changes are adversely impacting the community's social structure. It is difficult to prescribe acceptable mitigation for impacted social values; for this reason this is the major unavoidable adverse impact *anticipated to occur as a consequence of the Service's Preferred Alternative.*

Hydropower generation would be decreased and adversely impacted as a result of the Service's action. The loss of revenues associated with hydropower generation could be mitigated. New power generating facilities could be constructed, but this is highly unlikely because hydropower generation is not an authorized purpose for Newlands Project water *electric power generation is considered incidental to other water uses. Changing the timing of Lahontan Reservoir releases, which would increase monthly volumes in some months while reducing volumes in other months, could improve power generation and offset revenue losses.* It is unlikely that power loss could be mitigated under this action

alone, and the Service is identifying hydropower generation as one of the unavoidable adverse effects caused by the Service's action.

As farmland is taken out of production, some drainage ditches in secondary wetland areas of the Lahontan Valley may dry up. Some of the wildlife values associated with the drains would be shifted to the permanent wetlands, while other wildlife uses would be lost. Some species such as wood ducks, yellow-head blackbirds, and other birds which are found along Newlands Project drains would lose some habitat areas. Additionally, some secondary wetland habitat would be lost on Federal, State, and private lands as a result of this action. While most of the biological resources associated with these areas would shift to the four primary wetland areas, the other functions and values of these wetlands to the public and their owners would be lost.

With the reduction of agricultural lands would come reduced feeding areas for some species of wildlife, however there would continue to be adequate feeding areas on those lands which remain. The Service estimates that the remaining agricultural acreage under the *Preferred Alternative and alternatives is sufficient to maintain wildlife populations associated with farmland in the Lahontan Valley.*

4.29 IRREVERSIBLE AND IRRETRIEVABLE RESOURCE COMMITMENTS

Once the water rights are acquired by the Service for wetland use, Public Law 101-618 prohibits the sale, exchange or disposal of those rights for any use other than that which would benefit fish and wildlife within Lahontan Valley (Public Law 101-618 206(a)(1)(A)). Essentially, this constitutes an irretrievable commitment of the water resource once the water rights are acquired and transferred.

Once farmlands are converted to other, more intensive land uses such as residential subdivision, industrial, or commercial development, there is generally little economic incentive to convert such lands back into agriculture. The Service does not anticipate that lands will revert back to agricultural use after they are converted to more intensive land use. Changes in land use can result in an irreversible commitment of the resource in that farming or agricultural use of such lands would be eliminated. However, vacant lands that are not converted to a more intensive use could be re-water-righted and put back into production through a process of transferring existing agricultural water rights from less productive farmland to vacant lands of higher farmland quality.

4.30 RELATIONSHIP OF SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

Under the Service's Proposed Action and alternatives, short-term immediate negative impacts would be felt in the agricultural sector during the entire period of water rights acquisition. The acquisition and transfer of agricultural water rights would eliminate crop production from those lands, in most cases, by the next irrigation season. The loss of agricultural profits and income would occur in the short-term while the added benefits of increased recreational use at the wetland and the infusion of capital from the sale of water rights would take longer to be realized in the local economy. The acquisition of water rights for wetlands would occur over an unspecified period of time, therefore the full potential and benefits of sustaining 25,000 acres of wetland habitat would slowly accrue providing long-term biological and wildlife productivity.

* * * *

General Issue Comment: This action, as well as any other Federal action with the potential to impact the Newlands Project, should be stopped until a comprehensive

Environmental Impact Statement including all proposed, planned, and implemented Federal actions on the Carson-Truckee River Systems is finalized. Each and every action within Public Law 101-618 appears to have impacts tied to the other actions within the law. Decisions on the impacts of each action should not be made separately. The Department of the Interior, including the Service, should prepare a single EIS because of the immense cumulative effects of various Interior actions concerning control of water in western Nevada.

Public Law 101-618 authorizes or mandates the following Federal actions or programs that would affect water resources, water-users, and water management on the Truckee and Carson River systems: (1) Truckee River Operating Agreement, (2) Water Rights Acquisition for Lahontan Valley Wetlands Protection, (3) Transfer of Carson Lake to the State of Nevada for a Wildlife Management Area, (4) Cui-ui Recovery and the Acquisition of Water Rights for the Conservation and Recovery of Pyramid Lake Fisheries, (5) Expansion and Management of Stillwater NWR, (6) Conservation of NAS-Fallon Irrigation Water, (7) Water Right Acquisition for Expanding Fallon Indian Reservation Agriculture, (8) Newlands Project Efficiency Studies, (9) Compliance with OCAP, and (10) Recoupment of Excess Truckee River Diversions. Because all of these Federal actions or programs could impact water users in Lahontan Valley, the Service should complete a programmatic EIS so as to provide more information than what currently exists.

Response: While it is apparent that the many potential federal actions authorized or directed by P.L. 101-618 are geographically related, they are a collection of diverse, independent actions with independent time frames, and they will be administered by a variety of agencies. The Service has direct authority and responsibility (as the lead agency) for Lahontan Valley Wetlands Protection, Cui-ui Recovery,

Management of Stillwater NWR, and, by agreement, the Transfer of Carson Lake. A programmatic EIS is not required because (a) there is no "program," (b) most of the activities authorized or directed by Public Law 101-618 do not depend on each other (i.e., they're independent), and therefore (3) they could not be adequately analyzed in a single EIS.

Given those circumstances, it was concluded that the various elements of P.L. 101-618 should not be combined and could not be adequately evaluated in a single Service environmental document. Therefore, no programmatic environmental impact statement encompassing all aspects of the law was prepared nor is planned by the Service. Potential impacts of the components of P.L. 101-618 will continue to be evaluated over time as the issues mature and individual agencies identify goals and alternative means for addressing those issues. Federal actions related to P.L. 101-618 and proposed in the future will be combined in environmental documents where it is appropriate to combine them. In all cases, current and future environmental documents will analyze potential cumulative effects in recognition of the fact that the provisions of P.L. 101-618 are far-reaching and will not be implemented without regard for actions proposed by other entities, including state or local governments and private developers. In addition, it should be noted that a programmatic EIS would not necessarily require additional studies, information or analysis than what is contained in single action ElSs, and would provide a general overview of the multiple actions proposed and general impact analysis based upon existing information.

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Churchill County Administration Office

Comment 1: "There is no clearly defined proposed action in the Environmental Impact Statement. The proposed action needs to be stated clearly and described in detail for all the

elements of the action. There are elements throughout the document which are either components of or help to define the proposed action. We recommend that such elements be moved to Section 2.2 to ensure that the proposed action is thoroughly define and clarified."

Response: The Proposed Action is clearly defined on pages viii and ix, page 1-2, and page 2-2. The commentor does not define which elements should be incorporated into the Proposed Action so as to more clearly define and clarify the Proposed Action.

Comment 2: "The Scope of this EIS is poorly defined and in inconsistent with the requirements of 40 CFR Part 1508.25. The Scope consists of the range of actions including cumulative actions, alternatives, and impacts to be considered in an environmental impact statement. USFWS continues to limit the scope of this document to water acquisition and actions which are directly related to the acquisition process. For example, the wetlands management plan is being treated as a seperate action. We strongly recommend that the scope (action and alternatives) of the EIS be reassessed and adequately defined through consultation with cooperating agencies and adequate review of comments received during the scoping process. "

Response: According to 40 CFR Part 1508.25, scope consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements. To determine the scope of environmental impact statements, agencies shall consider 3 types of actions, 3 types of alternatives, and 3 types of impacts. They include: (a) Actions other than unconnected single actions) which may be: (1) Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other actions

which may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification. (2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement. (3) Similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography. An agency may wish to analyze these actions in the same impact statement. It should do so when the best way to assess adequately the combined impacts of similar actions or reasonable alternatives to such actions is to treat them in a single impact statement. (b)Alternatives, which include: (1) No action alternative. (2) Other reasonable courses of actions. (3) Mitigation measures (not in the proposed action). (c) Impacts, which may be: (1) Direct; (2) indirect; (3) cumulative.

The Water Rights Acquisition EIS for the Lahontan Valley Wetlands does not automatically trigger the Comprehensive Management Plan or any of the other actions authorized or mandated in P.L. 101-618. The Service's Comprehensive Management Plan for Stillwater NWR is simply a fine-tuning device, that may, if anything, slightly reduce the amount of water required to sustain 25,000 acres of primary wetland habitat. Although the Comprehensive Management Plan would occur in the same geographic area as the water rights acquisition program, the timing of the plan (sometime in the future) is such that the Service does not wish to analyze its action in this document.

The scope of the document was assessed and defined through nearly five years of consultation with cooperating agencies and tribes. Churchill County representatives

participated in a Service sponsored Cooperators' and technical advisors' scoping meeting (November 16, 1992), at which the range and scope of the alternatives and significant issues were tentatively agreed upon by the parties in attendance. A draft version of chapters 1 and 2, which address scope and alternatives, were reviewed by Churchill County in the fall of 1993, and no substantive changes in scope or alternatives were recommended at that time. Later, the county was given a copy of the provisional copy of the Draft EIS (August 16, 1994). Churchill County indicated support for the development of Alternative 5 and, in an August 16, 1994 meeting, agreed to provide the Service with its version of an alternative to be evaluated in the Draft EIS by September 20, 1994 (summary of meeting in a letter from R. Anglin, U.S. Fish and Wildlife Service, to B. Selinder, Churchill County, dated August 17, 1994). Churchill County did not provide the Service with an additional alternative to be considered or specific language to be added to the Service's Alternative 5.

Churchill County agreed to participate as a Cooperating Agency (May 18, 1992) in the preparation of the EIS. Pursuant to that agreement, the Service requested (letter dated, December 14, 1993, to Churchill County Manager, Bjorn P. Selinder) specific information and technical assistance for sections of the Draft EIS pertaining to population, tax base, land values, public services, subdivisions, farmland, landscape, zoning, and social values.. Churchill County's response to the request was that the County lacked the manpower and time to provide the Service with such information. To quote CEQ Forty Most Asked Questions 14.d., "How is the lead agency to treat the-comments of another agency with jurisdiction by law or special expertise which has failed or refused to cooperate or participate in scoping or EIS preparation? . . .cooperating agencies are generally under an obligation to raise issues or otherwise participate in the EIS process during scoping and

EIS preparation if they reasonably can do so. In practical terms, if a cooperating agency fails to cooperate at the outset, such as during scoping, it will find that its comments at a later stage will not be as persuasive to the lead agency."

In spite of the county's lack of participation in preparation of the document, county comments were twice incorporated prior to release of the draft document, once during development of chapters one and two (scope and alternatives) and again after a provisional draft revision, which although not required, was offered to cooperators as a good-faith effort on the part of the Service. It should be noted that extensive comments and changes were incorporated after the provisional draft, including the following changes that the County recommended; the purpose and need were expanded, the affected area was expanded, past water resource data was added, and sections on air quality, avian virus and contaminants were added. In addition, a fifth alternative (Alt-5) was developed, and mitigation measures were defined in more detail. The Service met with county representatives at least twice in the fall of 1994 to discuss these issues. Necessary changes and comments were incorporated by the Service, which as the lead agency has the ultimate responsibility for the content of an EIS (see CEO, 40 CFR, Forty Most Asked Questions, 14b.)